MBUYA PARENTS' SCHOOL

P.4 MATHEMATICS LESSON NOTES

TERM ONE

TOPIC 2: WHOLE NUMBERS Anew Mk bk4 pg 14

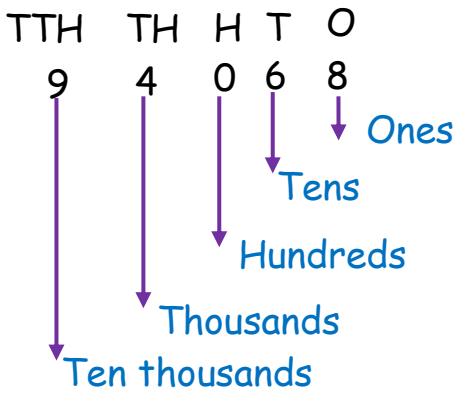
SUBTOPIC: PLACE VALUES AND VALUES OF WHOLE NUMBERS

A place value is a position of the digit in a given number/ numeral.

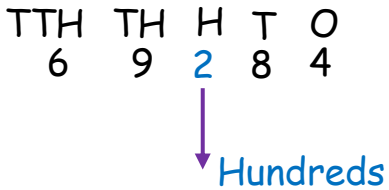
The digit at the extreme right is in the place value of ones.

Ten thousands	**Thousands**	Hundreds	Tens	Ones
TTH	**TH**	H	T	O

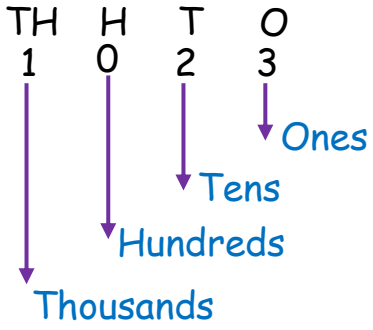
1. Write the place value of each digit in the numeral 94,068.



2. What is the place value of 2 in 69,284?



3. Write the place value of each digit in the number 1023



ACTIVITY

1. Write the place value of each digit in the numerals below.
   a) 342 b) 6097 c) 58,294 d) 7326

2. Write the place value of the underlined digits.
   a) 40,<u>5</u>61 b) 63<u>7</u>5 c) <u>5</u>8,294

Anew Mk bk4 pg 14

LESSON II

FINBDING VALUES OF DIGITS IN 5- DIGIT NUMBERS

(Anew Mk bk4 pg 15)

We find the value of a digit in a given number by multiplying the digit with its place value.

EXAMPLES

Find the value of each digit in the number 46,207.

Number	Place value	Method	Value
4 6,2 0 7			
	Ones	7x1	7
	Tens	0x10	0
	Hundreds	2x100	200
	Thousands	6x1000	6000
	Ten thousands	4x10,000	40,000

2. Find the value each digit in the number 7,826

TH H T O
7 8 2 6

6 x 1 = 6

2 x 10 = 20

8 x 100 = 800

7 x 1000 = 7000

3. Workout the value of 4 ten thousands

4 ten thousands = 4x10, 000

= 40, 000

ACTIVITY

1. Find the value of each digit in the following numerals
   a) 3,816 b) 11,935 c) 809
2. Workout the value 2 hundreds.
3. Find the value of the underlined digits;
   a) 65,073 b) 80617
4. Find the value of 5 thousands

LESSON III More about values of wholes

Examples

1. Workout the value of 2 tens +3 ones

2 tens + 3 ones

= (2x10) + (3x1)

=20 + 3

= 23

2. Calculate the value of 7thousands + 2 hundreds.

= 7thousands + 2 hundreds

= 7x1000 + 2x100

= 7000 + 200

= 7200

3. Find the sum of the values of 2 and 3 in the number 93,024

TTH	TH	H	T	O
9	3	0	2	4

2 x 10 = 20

3 x 1000 = 3000

Sum =

3 0 0 0
+ 2 0
3 0 2 0

4. Find the difference between the values of 6 and 2 in the number 96,234

TTH	TH	H	T	O
9	6	2	3	4

2 x 100 = 200

6 x 1000 = 6000

5 10
~~6~~ 0 0 0
- 2 0 0
5 8 0 0

ACTIVITY

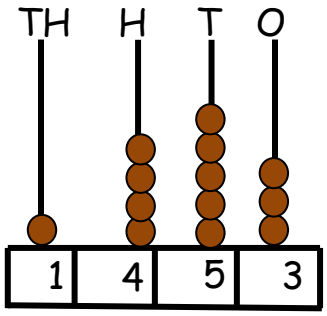
1. Workout the sum of the values of 4 and 3 in 4,302.
2. Find the difference between the values of 9 and 2 in 90260.
3. What is the sum of the values of 1 and 2 in the number?
4. Workout the difference between the values of 8 and 7 in the number 8573.
5. Workout the following correctly:
   a) 6 hundreds + 4 tens
   b) 9 thousands + 3 hundreds + 2 tens.
   c) 7hundreds + 2 tens + 6 ones.

LESSON IV: **ABACUS**

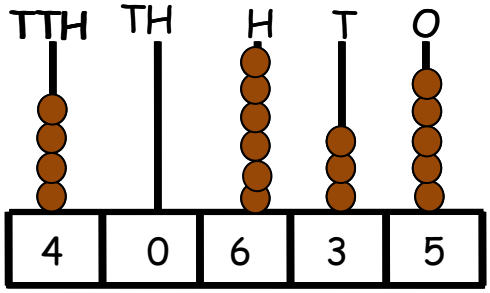
Writing numbers shown on the abacus

EXAMPLES

1. Write the number shown n the abacus below



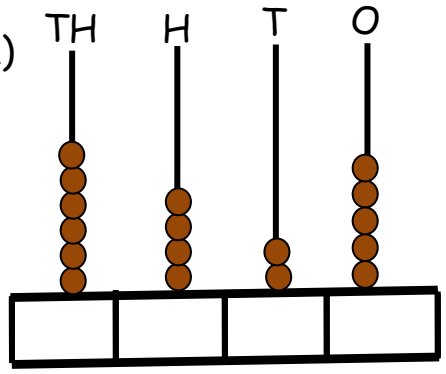
What number is shown on the abacus below?



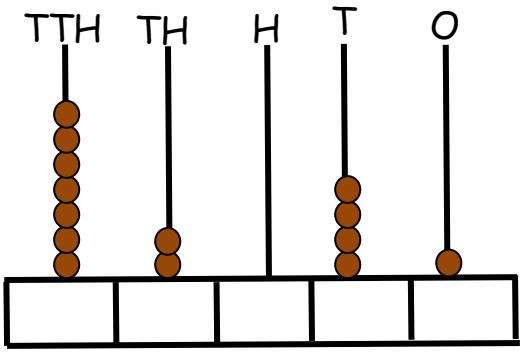
ACTIVITY

Write the numbers shown on the abacus

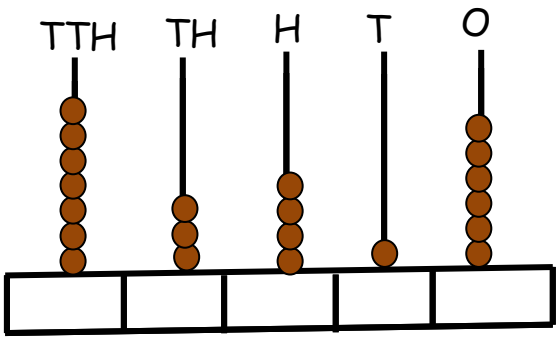
a)



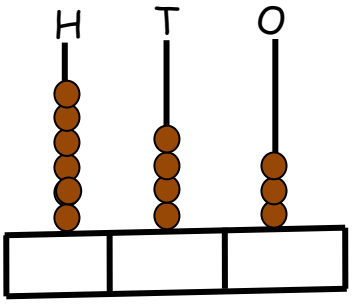
b)



C)



d)

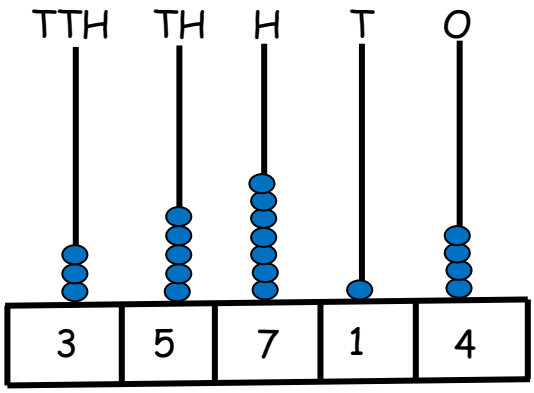


Anew Mk 2000 bk3 pg 33

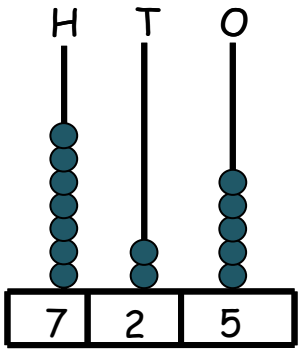
LESSON V: Showing numbers on abacus.

EXAMPLES

Show 35,714 On the abacus.



2. Show 725 on the abacus below



ACTIVITY

Show these numbers on the abacus

a) 143 b) 2,304 c) 381 d) 6007 e) 914 f) 7,241

Anew Mk 2000 bk3 pg 34

LESSON VI. FORMING NUMBERS FROM DIGITS

When forming numbers/ numerals from given digits, we arrange the given digits in order.

When forming the largest/ biggest number, we arrange the digits in descending order and leave out commas.

When forming the smallest numeral, we arrange the digits in ascending order and leave out commas.

EXAMPLES

1. Using digits 6, 7, 4 and 9.
   a) Form the largest number.

      Largest number = 9764

   b) Form the smallest number.

      Smallest number = 4679

2. Given the digits 3, 0 and 2.

   Form all the 3-digit numbers using the above digits.

   Possible 3-digit numbers

   302, 320, 203, 230

3. Given the digits 3, 4, 6, and 5

   a) Form the largest number.

   Largest number = 6543

   b) Form the smallest number

   Smallest number = 3456

   c) Find the sum of the largest and smallest numbers formed.

   Largest number → 6 5 4 3

   Smallest number → + 3 4 5 6

   Sum = 9 9 9 9

4. Use the digits 7, 2 and 3 to form all the possible 3-digit numbers.

   7 2 3

   723 237 327

   732 273 372

   c) Workout the difference between the smallest and biggest numerals formed.

   612 12

   Largest number = ~~7~~ ~~3~~ 2

   Smallest number = - 2 3 7

   4 9 5

ACTIVITY

1. Using digits 2, 8 and 9, form all the possible 3-digit numbers.
2. Alvin wrote the following digits 4, 0 and 2 on a manila card.
   a) Form the smallest number Alvin wrote.
   b) Form the largest number Alvin wrote.
   c) Workout the sum of the biggest and smallest numbers formed.
3. Write down all 3-digit numbers that can be formed using digits 4, 0 and 5.

b) Find the difference between the biggest and smallest numbers formed.

4. Given the digits 2, 8, 6 and 9.
   a) Form the biggest number
   b) Form the smallest number.

LESSON VI

SUBTOPIC. EXPANDING WHOLES UP TO 5- DIGITS

Expanding numbers using values (Mk mtc Bk 16)

Examples

1. Expand 345 using values

H	T	O	
3	4	5	
		5	$5 \times 1 = 5$
	4		$4 \times 10 = 40$
3			$3 \times 100 = 300$

$345 = 300 + 40 + 5$

2. Write 4,623 in expanded form using values

TH	H	T	O	
4	6	2	3	
				3 x 1 = 3
				2 x 10 = 20
				6 x 100 = 600
				4 x 1000 = 4000

4,623 = 4000 + 600 + 20 + 3

2. Expand 67, 804 in value form.

TTH	TH	H	T	O	
6	7	8	0	4	
					4 x 1 = 4
					0 x10 = 0
					8 x 100 = 800
					7 x 1000 = 7000
					6 x 10,000 = 60,000

67,804 = 60000 + 7000 + 800 + 0 + 4

ACTIVITY

Expand the following numbers using values.

a) 248 b) 56,390 c) 68,841 d) 5,932

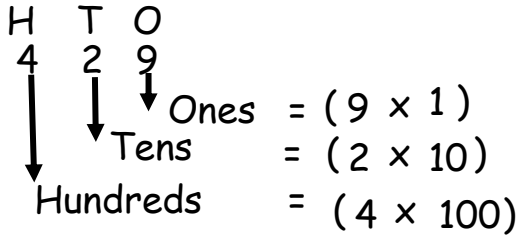
e)70,305 f) 3861 g) 824 h) 16,841

LESSON VII

EXPANDING NUMBERS USING THEIR PLACE VALUES (mk mtc bk4pg17)

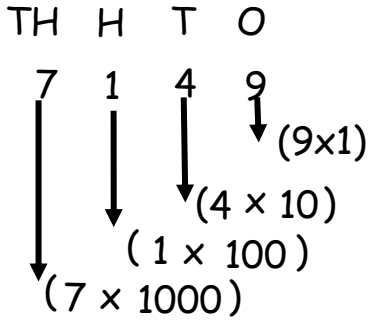
Examples

1. Expand 429 using values



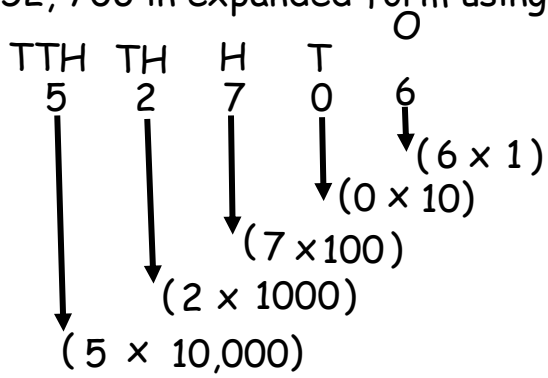
429(4x100) + (2x10) + (9x1)

2. Expand 7,149 using place values



7,149 = (7x1000) + (1x100) + (4x10) + (9x1)

2. Write 52, 706 in expanded form using place values.



52,706 = (5x10, 000) + (2x1000) + (7x100) + (0x10) + (6x1)

ACTIVITY

Expand the following numbers using place values

a) 241 b) 6,032 c) 84,579 d) 3,576 e) 1,423
f) 89,263 g) 496 h) 10,508

LESSON VIII

WRITING EXPANDED NUMBERS IN SHORT FORM (Mk mtc pg18)

Examples:

1. What number has been expanded to get 400 + 10 + 6?

400 + 10 + 6 = 4 0 0
1 0
\+ 6
4 1 6

2. Write in short 5000 + 400 + 50 +2

5000 + 400 + 50 + 2
= 5 0 0 0
4 0 0
5 0
\+ 2
5 4 5 2

2. What number has been expanded to give
(9x1000) + (6x100) + (5x10) + (1x1)?

9000 + 600 + 50 + 1
9 0 0 0
6 0 0
5 0
\+ 1
9 4 5 1

3. Write (1x10, 000) + (3x100) + (4x10) + (2x1) in short form.
= 10, 000 + 300 + 40 + 2
= 10, 0 0 0
3 0 0
4 0
\+ 2
1 0 3 4 2

ACTIVITY

Write the following in short form.

1. 1000 + 70 + 8
2. (6x1000) + (7x10) + (2x1)
3. 60,000 + 400 + 90 + 3
4. (2x10000) + (8x1000) + (4x10) + (7x1)
5. 90,000 + 3000 + 400 + 20 +1
6. (2x10000) + (5x1000) +(0x100) + (6x10)

LESSON IX

SUBTOPIC: READING AND WRITING NUMBERS

Writing numbers in words (Mk mtc bk4 pg 19)

Examples

1. Write 426 in words.

H	T	O
4	2	6

400 → Four hundred
20 → Twenty
\+ 6 → Six
426 → Four hundred twenty six.

2. Write 1,257 in words

TH	H	T	O
1	2	5	7

1000 → One thousand
200 → Two hundred
50 → Fifty
\+ 7 → Seven
1257 → One thousand, two hundred fifty seven

3. Write 42,341 words.

TTH	TH	H	T	O
4	2	3	4	1

42000 → Forty two thousand
300 → Three hundred
40 → Forty
\+ 1 → One
42341 → Forty two thousand three hundred forty one

4. Write in words 95, 047

TTH	TH	H	T	O
9	5	0	4	7

95000 → Ninety five thousand
40 → Forty
\+ 7 → Seven
95047 → Ninety five thousand, forty seven

ACTIVITY

1. Write the following numbers in words.

a) 444 b) 2,556 c) 9,999 d) 92,413 e) 72,136

f) 70,025 g) 49, 855 h) 8142 i) 79,800

2. There are 752 pupils in our school. Write the number in words.

LESSON X

WRITING NUMBER WORDS IN FIGURES (Mk mtc bk4 pg21)

Examples

1. Write four hundred ninety three in figures.

Four hundred ⟶ 400
Ninety ⟶ 90
Three ⟶ + 3
493

2. Write five thousand, two hundred fifteen in figures.

Five thousand ⟶ 5 0 0 0
Two hundred ⟶ 2 0 0
Fifteen ⟶ + 1 5
5 2 1 5

3. Write in figures: Eighty thousand, six hundred seventy six.

Eighty thousand ⟶ 8 0, 0 0 0
Six hundred ⟶ 6 0 0
Seventy six ⟶ + 7 6
8 0, 6 7 6

ACTIVITY

1. Write the following number words in figures.
   a) Three hundred forty nine.
   b) Four thousand, eight hundred seventeen.
   c) Eleven thousand, five hundred twenty two.
   d) Ninety nine thousand, two hundred ninety four.
2. Rusoke bought a coat at thirty six thousand, five hundred shillings. Write the cost of the coat in words.

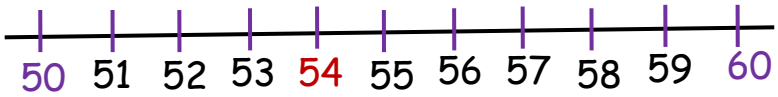
LESSON XI

SUBTOPIC: ROUNDING OFF WHOLE NUMBERS

Rounding off to the nearest tens (Mk mtc bk4 pg 28)

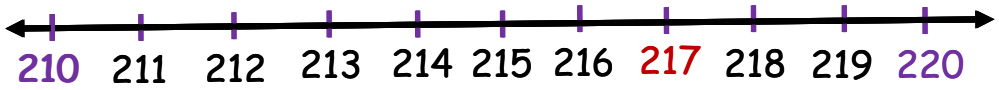
Examples

1. Round off 54 to the nearest tens using a number line.



54 is nearer to 50 than it is to 60
Therefore 54 is rounded off to 50

2. Round off 217 to the nearest tens using a number line.



217 is nearer to 220 than it is to 210.

Therefore 217 is rounded off to 220.

3. Round off 26 to the nearest tens

	T	O
	2	6
+	1	0
	3	0

26 ≅ 30

4. Round off 997 to the nearest tens

	H	T	O
	1		
	9	9	7
+		1	0
1	0	0	0

997 ≅ 1000

ACTIVITY

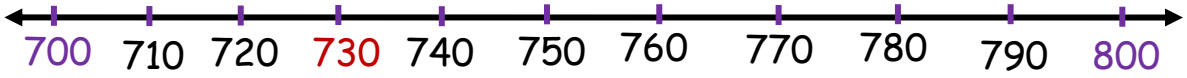
1. Draw a number line for each of the following numbers and round off to the nearest tens.
   a) 36 b) 62 c) 113 d) 793
2. Round off the following to the nearest tens by calculation
   a) 345 b) 16 c) 75 d) 832 e) 507

LESSON XII

ROUNDING OFF TO THE NEAREST HUNDREDS (mk mtc bk 4 pg29)

EXAMPLES

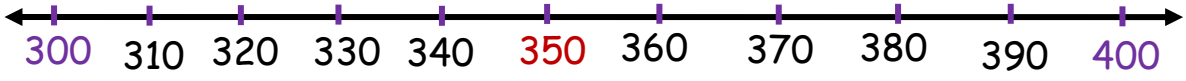
1. Round off 730 to the nearest hundreds using a number line



730 is nearer to 700 than it is to 800.

730 is rounded down to 700

2. Round off 350 to the3 nearest hundreds using a number line



350 is nearer to 400 than it is to 300.

350 is rounded off to 400

3. Round off 2370 to the nearest hundreds.

	TH	H	T	O
	2	3	7	0
+		1	0	0
	2	4	0	0

2370 ≅ 2400

4. Round off 8952 to the nearest hundreds.

	TH	H	T	O
	1			
	8	9	5	2
+		1	0	0
	9	0	0	0

8952 ≅ 9000

ACTIVITY

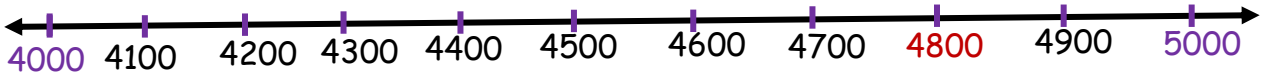
1. Using a number line round off the following to nearest hundreds
   a) 180 b) 470 c) 910 d) 680
2. Round off the following to the nearest hundreds
   a) 382 b) 798 c) 607 d) 5301

LESSON XIII

ROUNDIND OFF TO THE NEAREST THOUSANDS(mk mtc bk4pg30)

EXAMPLES

1. Round off 4,800 to the nearest thousands



4,800 is nearer to 5,000 than it is to 4,000

4,800 is rounded off to 5,000

2. Round off 9300 to the nearest thousands.

	TH	H	T	O
	9	3	0	0
+	0	0	0	0
	9	0	0	0

9,300 ≅ 9,000

3. Round of 3,523 to the nearest thousands.

	TH	H	T	O
	3	5	2	3
+	1	0	0	0
	4	0	0	0

3,523 ≅ 4,000

ACTIVITY

1. Round off the following to the nearest thousands
   a) 3,200 b) 1,200 4550
2. Round off to the nearest thousands
   a) 6,720 b) 9,851 c) 1,047 d) 1,697

LESSON XIV

SUBTOPIC: ROMAN NUMERALS

Reading and writing Roman numerals (mk mtc bk4 pg32)

Basic Roman numerals

Roman numerals	I	V	X	L	C
Hindu-Arabic numerals	1	5	10	50	100

All Roman numerals are written using capital letters only.

Repeated Roman numerals (2 and 3)

2	3	20	30
II	III	XX	XXX

Subtraction Roman numerals (4and9)

4 ⟶ (5-1) = IV
9 ⟶ (10-1) = IX
40 ⟶ (50-10) = XL
90 ⟶ (100-10)= XC

Addition Roman numerals (6 , 7 , 8)

6 ⟶ (5+1) = VI
7 ⟶ (5+2) = VII
8 ⟶ (5+3) = VIII
60 ⟶ (50+10) = LX
70 ⟶ (50+20) = LXX
80 ⟶ (50+30) = LXXX

Changing Hindu- Arabic numerals to Roman numerals

a) 14

14 = 10 + 4
X IV
14 = XIV

b) My sister is 27 years old.
Express her age in Roman numerals

27 = 20 + 7
XX VII
27 = XXVII

c) Express 49 in Roman numerals

49 = 40 + 9

XL IX

49 = XLIX

d) John has 78 cows. Write this number in Roman numerals

78 70 + 8

LXX VIII

78 = LXXVIII

ACTIVITY

1. Change the following to Roman numerals

a) 3 b) 18 c) 54 d) 31 e) 68 f) 99 g) 13

3. Our hen has 15 chicks. Write the number of chicks in Roman numerals.
4. Nyakato has 88 goats. Express her number of cows in Roman numerals.
5. Peter has 11 pencils and Mary has 19 pencils. Express their total number of pencils in Roman numerals

LESSON XV

Changing Roman numerals to Hindu-Arabic numerals.

Examples (Mk bk4 pg 33)

1. Express XII in Hindu-Arabic numerals.

XII = X II

10 + 2

XII = 12

3. Express XXXIX in Hindu-Arabic numerals

XXXIX= XXX IX

30 + 9

XXXIX = 39

2. The last page on a magazine has XX as its page. Write it in Hindu-Arabic numeral

XX = X + X

10 + 10

XX = 20

3. The label on my brother's classroom door bears this symbol XLIII. Write the symbol on the door in Hindu-Arabic numerals.

XLIII = XL III

40 3

XLIII = 43

ACTIVITY

1. Express the following as Hindu-Arabic numerals.
   a) IV b) VII C) XIX d) XXVI e) XXXVIII
2. The symbol on Martin's jersey is XIII. Write the symbol on Martin's jersey in Hindu-Arabic numerals.
3. Nakandi listed the items she wanted to buy. If the last item was numbered XXVII. Write the number of items she wanted in Hindu-Arabic numerals.

LESSON I

TOPIC 4: NUMBER PATTERNS AND SEQUENCES

SUB-TOPIC: TYPES OF NUMBERS

Anew Mk bk4 pg 61

CONTENT: Even and odd numbers

Even numbers if divided by two give us 0 (zero) as a remainder.

These are; 0, 2, 4, 6, 8, 10, 12, 14, 16…

Note: Any number ending with 0, 2, 4, 6, 8 is an even number.

Odd numbers are numbers if divided by two leave us with 1 as a remainder. These are; 1, 3, 5, 7, 9, 11, 13, 15, 17, 19…

Note: All numbers that have their last digit as 1, 3, 7, and 9 are odd numbers

Examples

1. List all even numbers between 10 and 20?

   Even numbers btn 10 and 20 = {12, 14, 16, 18}

2. How many odd numbers are there between 0 and 10

   Odd numbers btn 0 and 10 ={1, 3, 5, 7, 9}

   = 5 odd numbers

3. What is the difference between the second and the fourth even numbers?

   2^{nd} 4^{th}

   Even numbers = {0, 2, 4, 6, 8, 10, 12, 14,…}

   Difference = 6-2

   = 4

ACTIVITY

1. List down all even numbers between 10 and 20.
2. What is the sum of the first 4 even numbers?
3. Find the product of the first and fifth even numbers.
4. List down all odd numbers less than 10.
5. What is the sum of all odd numbers less than 8?
6. Find the product of the 3^{rd} and 4^{th} odd numbers.

LESSON II

Content: Writing sequences of Even and Odd numbers

Examples (Mk mtc bk4 pg 66-67)

1. Fill in the missing numbers.

   0, 2, 4, ☐, 8, 10, ☐ ,14

Keep adding 2

0, 2, 4, 6, 8, 10, 12, 14

+2 +2 +2 +2 +2 +2 +2

2. What are next numbers in the sequence?

22, 20, 18, 16, 14, 12, 10 keep subtracting 2

-2 -2 -2 -2 -2 -2

3. Find the missing odd numbers

1, 3, ☐, 7, ☐, 11, ☐

Keep adding 2

1, 3, 5, 7, 9, 11, 13, 15

+2 +2 +2 +2 +2 +2 +2

4. Find the next odd numbers in the sequence.

25, 23, 21, 19, 17, 15, 13

-2 -2 -2 -2 -2 -2

Keep subtracting 2

ACTIVITY

Anew Mk bk4 pg 66-67

Find the missing numbers in the sequences

1. 20, 22, ☐, ☐, 28, 30, 32
2. 16, 18, 20, 22, 24, ☐, ☐
3. 48, 46, 42, 40, ☐, ☐, ☐
4. 11, ☐, 15, ☐, 19, ☐, 23
5. 45, 43, 41, ☐, ☐, ☐
6. 21, 23, ☐, ☐, 29, ☐

LESSON III

SUTOPIC: FORMING PATTERNS AND SEQUENCES USING THE FOUR OPERATIONS

CONTENT: Forming sequence of numbers by adding

Examples (mk mtc bk4 pg 69)

1. Find the next number in the sequence.

   1, 5, 9, 13, 17, ___, ___, ___

   Find the difference btn any 2numbers next to each other.

   5-1= 4 9-5=4

   1, 5, 9, 13, 17, 21, 25, 29

   +4 +4 +4 +4 +4 +4 +4

   17 + 4 = 21
   21 + 4 = 25
   25 + 4 = 29

2. Find the next 3 missing numbers

   15, 25, 35, 45, 55, 65, 75

   +10 +10 +10 +10 +10 +10

25-15=10

35-25=10

55

45 + 10 = 55
55 + 10 = 65
65 + 10 = 75

NOTE: Find the common difference, then keep on adding that difference.

ACTIVITY Anew Mk bk4 pg 69

Find the next 3 numbers in each sequence.

1. 3, 6, 9, 12, ____, ____, ____.
2. 8, 12, 16, 20, ____, ____, ____.
3. 33, 40, 47, 54,____, ____, ____.
4. 7, 12, 17, 22, 27, ___, ____, ___.
5. 10, 21, 32, 43, ____, ____, ____.
6. 11, 17, 23, 29, ____, ____, ____.

LESSON IV

CONTENT: FORMING SEQUENCES OF NUMBERS BY SUBTRACTING

Examples Anew Mk bk4 pg 70

1. Find the next 3 missing numbers;

25, 22, 19, 16, 13, 10, 7, 4

-3 -3 -3 -3 -3 **-3** **-3**

25-22=3

22-19=3

13-3= 10

10-3= 7

7-3= 4

26

2. Complete the sequence

56, 51, 46, 41, 36, 31, 26.

-5 -5 -5 -5 -5 -5

56-51=5

51-46=5

41-5=36

36-5=31

31-5=26

ACTIVITY

1. Copy and complete the sequence
    1. 29, 25, 21, 17, ___, ___, ___.
    2. 48, 41, 34, 27, ___, ___, ___.
    3. 99, 90, 81, 72, 63, ___, ___, ___.
    4. 107, 96, 85, 74,___, ____, ____
    5. 69, 63, 57, 51,___, ___, ____
    6. 82, 72, 62, 52, ____, ____, ____.

LESSON V

CONTENT; Forming sequences of numbers by multiplying

Examples Anew Mk bk pg 71

1. Find the next numbers in the sequence below.

1, 2, 4, 16, 32, 64, 128, 256.

x2 x2 x2 x2 x2 x2 x2

32x2 =64

64x2 =128

128x2=256

2. Find the two missing numbers in the sequence

10, 20, 40, 80,

x2 x2 x2 x2

20x2 =40

80x2 =160

ACTIVITY

Find the missing numbers in the following sequences.

1. 1, 3, 9, ☐, 81, ☐
2. 5, 10, 20, 40, ____, ____, ____
3. 2, 6, ☐, 54, ☐
4. 4, 12, 36, ___, ___
5. ☐, 4, 16, 64, ___,___

LESSON VI

CONTENT: Forming sequences of numbers by dividing.

Examples

Anew mk bk4 pg 72

1. Find the missing numbers in the sequence below:

128, 64, 32, 16, 8, 4, 2, 1

÷2 ÷2 ÷2 ÷2 ÷2 ÷2 ÷2

$128 \div 2 = 64$

$16 \div 2 = 8$

2. Find the missing numbers in the sequence.

81, 27, 9, 3, 1

÷3 ÷3 ÷3 ÷3

$9 \div 3 = 3$

$3 \div 3 = 1$

3. Complete the sequence.

125, 25, 5, 1

÷5 ÷5 ÷5

$5 \div 5 = 1$

ACTIVITY

Copy and complete the sequences.

a) 256, 64, ☐, 4, 1

b) 160, 80, 40, 20, ____

c) 224, 112, 56, 28, ____, ____

d) 192, 96, 48, ☐, 12, ☐, 3

LESSON VII

CONTENT: **Counting and whole numbers**

Definition: Counting numbers are numbers we use to count. They begin with one.

Examples:

1, 2, 3, 4, 5, 6, 7, 8, 9

Whole numbers

A set of all counting numbers and 0. They begin with zero.

Examples

0, 1, 2, 3, 4, 5 …

1. Write the missing numbers

0, 1, 2, 3, 4, 5, _6_, _7_, _8_, _9

2. What is the sum of the 9^{th} and 12^{th} counting numbers?

Counting numbers = {1, 2, 3, 4, 5, 6, 7, 8, 9^{th}, 10, 11, 12^{th}, 13, 14…

Sum ⟶ 9 + 12 = 21

ACTIVITY

1. Find the 6^{th} counting numbers.
2. Find the sum of the next two numbers

   8, 7, 6, 5, 4,___, ___
3. List the first 7 whole numbers.
4. Given that set B = {whole numbers between 4 and 13}. Find n(B)
5. Find the difference of the 12^{th} whole number and 8^{th} counting number.

LESSON VIII

SUBTOPIC: TYPES OF NUMBERS

CONTENT: Prime and composite numbers (MK bk5 pg48-49)

Definition: A prime number is a number which has 2 factors only: 1 and that number itself.

Examples:

2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43 …… etc)

Composite number is a number which has more than two factors

Examples:

(4, 6, 8, 9, 10, 12, 14, 15, 16, 18, 20, 21, 22, 24, 25 ….. etc)

ACTIVITY

1. List down the first ten prime numbers.
2. List down the first five composite numbers.
3. Find the sum of the first three prime numbers.
4. Find the difference between the sixth and the fourth composite numbers.

LESSON IX

SUBTOPIC: FACTORS OF NUMBERS

CONTENT: LISTING FACTORS (Anew Mk bk4 pg 73)

Factors are given pairs of numbers you multiply together to get a multiple/product.

Example

1. Which two numbers do we multiply to get 12?

   Note: 1 is the first factor of every number and it's a factor of itself.

   $F_{12} = 1 \times 12 = 12$

   $2 \times 6 = 12$

   $3 \times 4 = 12$

   $\therefore F_{12} = \{1, 2, 3, 4, 6, 12\}$

2. List down all the factors of 16

   $F_{16} = 1 \times 6 = 16$

   $2 \times 8 = 16$

   $4 \times 4 = 16$

   $\therefore F_{16} = \{1, 2, 4, 8, 16\}$

3. List down all the factors of 9

   $F_9 = 1x9 = 9$

   $3x3 = 9$

   $F_9 = \{1, 3, 9\}$

ACTIVITY

List down all the factors of each of the numbers below;

a) 6 b) 8 c) 14 d) 10 e) 18 f) 20 g) 24 h) 36

LESSON X

CONTENT: COMMON FACTORS

Examples.

(a) List down common factors of 4 and 6

$F_4\{①, ②, 4\}$

$F_6\{①, ②, 3, 6\}$

Common factors = { 1, 2}

(b) Find the Greatest Common Factors of 6 and 8

F_6= {①,②, 3 ,6}

F_8={①,②, 4, 8}

Common factors = {1, 2,}

G.C.F of 6 and 8 is $\{2\}$

ACTIVITY :

1. List down common factors of
   a) 8 and 10
   b) 20 and 10
   c) 9 and 15

2. Find the G.C.F of
   a) 15 and 20
   b) 4 and 8
   c) 16 and 12

LESSON XI

SUBTOPIC: MULTIPLES OF NUMBERS

CONTENT: LISTING MULTIPLES OF NUMBERS (Mk bk5 pg46)

A multiple is a product of a given number and another whole greater than zero e.g.

4 x 2 = 8, and 8 is a multiple of 4.

(i) List multiples of 4

1 x 4 = 4

2 x 4 = 8

3 x 4 = 12

4 x 4 = 16

5 x 4 = 20

6 x 4 = 24

M_4 = {4, 8, 12, 16, 20, 24…}

(ii) List multiples of 5

1 x 5 = 5

2 x 5 = 10

3 x 5 = 15

4 x 5 = 20

5 x 5 = 25

6 x 5 = 30

M_5 = {5, 10, 15, 20, 25,30…}

ACTIVITY

3. List down the multiples of 9

1x9 = 9=

2x9 = 18

3x9 = 27

4x9 = 36

5x9 = 45

6x9 = 54

M_9 = {9, 18, 27, 36, 45, 54…}

List down multiples of:

a) 3

b) 6

c) 7

d) 8

e) 2

f) 10

LESSON XII

CONTENT: COMMON MULTIPLES AND LCM (MK bk5 pg47)

Examples

1. Find the first common multiples of 2 and 4

M_2 = {2,4,6,8,10,12,14,16,18,…}

M_4 = {4, 8, 12, 16, 20, 24……}

Common multiples = { 4, 8, 12, 16}

2. Find the L.C.M of 4 and 5

M_4 = {4, 8, 12, 16, 20, 24, 28}

M_5={5, 10, 15, 20, 25, 30, ...}

Common multiples = { 20}

∴ L.C.M is 20

3. Find the L.C.M of 8 and 9

M_8 = {8, 16, 24, 32, 40, 48, 56, 64, 72, 80...}

M_9 = {9, 18, 27, 36, 45, 54, 63, 72, 81...}

Common multiples= {72}

L.C.M of 8 and 9 = 72

ACTIVITY

1. Find the common multiples (L.C.M) of the following.
   a) 6 and 7 b) 6 and 8 c) 4 and 12 d) 8 and 12
2. Find the L.C.M of :
   a) 4 and 8 b) 5 and 7 c) 4 and 6 d) 4 and 5

THEME: INTERPRETATION OF GRAPHS AND DATA

TOPIC 6: DATA HANDLING

SUBTOPIC: TALLIES (Anew Mk bk4 pg 122)

CONTENT: Counting and representing numbers with tally marks.

Examples

Complete the tally marks

𝍸 /// = 8, 𝍸 𝍸 = 10, 𝍸 𝍸 ///= 13, 𝍸 𝍸 𝍸 𝍸 𝍸 / = 26

𝍸 //// = 9

2. Use tally marks to represent these numbers:

a) 3 = /// b) 12 = 𝍸// c) 23 = 

ACTIVITY

1. Find the numbers represented by the following tally marks.

a) 𝍸 / b) 𝍸 𝍸 /// c) 

2. Use tally marks to represent these numbers of items

a) 11 b) 29 c) 13 d) 35 e) 19

LESSON II

CONTENT: Drawing tables for data represented by tally marks

Examples

1. An assortment of boxes of books was put in a bookstore as shown. Draw a table for the information below

Math books 𝍸 𝍸 /// English 𝍸 ||| SST ||||

Science 𝍸 / RE books 𝍸 𝍸 𝍸

Subject	Math	English	Science	SST	RE
NO. Boxes	13	8	6	4	15

2. Mr. Ochen recorded the number of boxes of items he bought for his shop

   Toothpaste 𝍸 ||| Biscuits 𝍸 𝍸| Soap 𝍸 𝍸

   Matches 𝍸 𝍸 || Books 𝍸 𝍸 𝍸

ACTIVITY

Draw tables for the information represented by tally marks.

1. A school recorded the number of pupils absent for a week.

   Monday 𝍸 | Tuesday |||| Wednesday 𝍸 |||

   Thursday 𝍸 |||| Friday 𝍸 𝍸 |||

2. A fruit seller recoded the number of fruits she sold in a day.

   Pineapples 𝍸 𝍸 𝍸 Watermelon 𝍸 𝍸

   Oranges 𝍸 𝍸 𝍸 𝍸 | Passion fruits 𝍸 𝍸 𝍸 𝍸 𝍸||

3. Peter recorder the number of pencils given out to different classes.

   P.1 ||| P.2 𝍸| P.3 𝍸|| P.4 |||| P.5 𝍸 𝍸|| P.6 𝍸 𝍸 |||

   P.7 𝍸|||

CONTENT: Recording information using tally marks

LESSON III Examples

1. Use tally marks to record the information below

The ages of children in a certain were recorded in years as follows: 2, 4, 7, 3, 4, 2, 3, 4, 5, 3, 4, 4, 6, 5, 6, 5

Age of pupils	Tallies	Frequency
2 years	//	2
3 years	///	3
4 years	////	5
5 years	///	3
6 years	//	2
7 years	/	1

a) How many children of 3 years are in the village?

There are 3 children of 3 years.

b) What is the total number of children that were recorded?

2 + 3 + 5 + 3 + 2 + 1 = 16 children.

c) Which age has the highest number of children?

Age 4 has the highest number of children.

ACTIVITY

Use tallies to record the information given below.

1. A teacher recorded marks for the test marked out of 20.

   11, 10, 14, 13, 12, 19, 16, 17, 13, 18, 19, 18, 12, 13, 14, 17, 13

   a) Find the total number of pupils who did the test.
   b) Which mark was scored by most pupils?
2. A traffic police officer recorded number of traffic offenses weekly. 60, 70, 30, 40, 50, 40, 60, 30, 40, 50, 20, 25, 30, 20, 25, 40.
3. A pupil rolled a dice and the results were recorded as follows: 1, 3, 6, 4, 2, 3,6, 5, 3, 3, 2, 1, 1, 3, 4, 6, 2,4,1,1

LESSON IV

CONTENT: Reading and interpreting tables (Anew Mk bk4 pg 125- 126)

Examples

1. The table shows litres of milk Mr. Kavuma's cow produced in a week.

Days	Mon	Tue	Wed	Thur	Fri	Sat	Sun
Number of litres	12	10	9	15	10	13	5

a) On which day did the cow produce the highest number of litres of milk? It produced the highest number of litres on Thursday.

b) How many litres of milk did the cow produce in the first two days of the week?

Sunday → 5 litres

Monday → +12 litres

17 litres

c) How many more litres of milk did the cow produce on Saturday than Wednesday? 13 litres – 9litres = 4 more litres

2. The table below shows the number of domestic animals kept in a certain village farm.

Farm animals	Goats	Sheep	Rabbits	Donkeys	Cows
No. of animals	9	6	12	4	3

a) How many rabbits are kept on the farm?

There are 12 rabbits on the farm

b) How many more goats than sheep are on the farm?

No. Goats – No. sheep

9 – 6 = 3 more goats

c) What is the total number of animals on the farm?

Total number of animals = 9+ 6 + 12 + 4 + 3

= 15 +19

= 34 animals

ACTIVITY

1. The table below shows items which Okia sold in his shop on a certain day.

Items	maize flour (kg)	Sugar (kg)	Rice (kg)	Soya (kg)	Bars of soap	Crates of soda
Number	18	24	16	6	4	12

a) How many crates of soda did Okia sell on that day?

b) Find the total number of kilogrammes of sugar and maize flour which were sold altogether.

c) How many bars of soap were sold?

d) Find the total number of kilogrammes of rice, sugar and maize flour sold altogether that day?

2. The table below shows the number of pupils who passed different subjects out 60 pupils in the class.

Subject	English	Maths	Science	Social studies
No. of pupils	35	28	42	55

a) Which subject was passed by most of the pupils?

b) Which was the worst done subject by the class?

c) How many pupils passed Science and Mathematics?

d) How many pupils failed Social studies?

3. The table below shows farmers who grow different fruits in a certain village.

Fruits	Oranges	Pineapples	Passionfruits	Mangoes	Tomatoes
No. of farmers	15	30	25	25	35

a) Which fruit is grown by the smallest number of people?

b) How many farmers grow Passion fruits and tomatoes?

c) Find the number of number of farmers who grow mangoes, oranges and pineapples?

d) What is the total number of farmers in the village?

e) How many more farmers grow tomatoes than oranges?

LESSON V (Anew mk bk4 pg 127)

CONTENT: DRAWING TABLES FOR GIVEN INFORMATION

Examples

1. The number of pupils who came late last week are as follows; Monday__10, Tuesday__8, Wednesday__5, Thursday__5, Friday__12. Put the information in a table.

Days	Monday	Tuesday	Wednesday	Thursday	Friday
No. of pupils	10	8	5	5	12

b) How many pupils came late on Monday and Tuesday?

Number of pupils who came late on Monday and Tuesday = 10 + 8

= 18 pupils

d) How many more pupils came late on Friday than on Wednesday?

Friday → 12

Wednesday → - 5

7 more pupils

d) Find the total number of pupils that came late that week.

Total number = 10 + 8 + 5 + 5 +12

= 18 + 22

= 40 pupils

ACTIVITY

1. Mr. Rodgers spent on different items for a week as follows;
Food—sh. 50,000, Water –sh. 20,000, Transport—sh.30, 000, Others—sh. 25,000.

a) Draw a table to record this information.
b) How much did he spend on food and transport?
c) How much did he spend for the whole week?

2. Suzan recorded the number of children born in Lubaga hospital in a week as follows:
Monday-48, Tuesday-52, Wednesday-30, Thursday-60, Friday-30 and Saturday- 40.
   a) Draw a table to represent this information.
   b) How many children were born on Monday and Thursday?
   c) How many more children were born on Thursday than on Tuesday?
   d) Find the total number of children born in that week?

3. A farmer had different animals in his farm as follows:
Goats-11, Sheep-9, Rabbits-12, Pigs-6, Cows-18.
   a) Draw a table to represent the information.
   b) How many cows and rabbits were in the farm altogether?
   c) How many animals were in farm altogether?

LESSON VI

SUBTOPIC: PICTOGRAPHS (Anew mk bk4 pg 128 – 129)

CONTENT: Interpreting pictographs.

Picture graphs use symbols to represent an item, people or number of things. A scale shows number of items each picture represents

Examples

1. The pictograph below shows the number of apples harvested at John's farm. Study it and answer the questions that follow.

Months	Number of apples
January	
February	
March	
April	
May	

Scale  represents 5 apples.

a) How many apples were harvested in January?

Apples harvested in January = 8 x 5

= 40 apples.

b) How many more apples were harvested in April than in March?

April → 7x5 = 35 apples

March → 4x5 = 20 apples

35 apples – 20 apples.

= 15 more apples

c) How many apples were harvested in February and May?

= (5+4) x5

= 9x5

= 45 apples

d) Find the total number of apples harvest in the 5 months altogether?

Total = (8 + 5 + 4 + 7 + 4)x5

= 28x5

= 140 apples

ACTIVITY

1. The pictograph below shows the number of cars that passed by our school last week. Study it carefully and answer questions about it.

Day	cars
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	

SCALE:

 Represents 10 cars

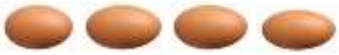
a) Which day had the least number of cars?

b) How many cars passed by our school on Friday?

c) How many more cars passed by our school on Monday than on Thursday?

d) How many cars passed by our school altogether?

2. The picture graph below represents the number of eggs collected from Musa's poultry farm.

Days	Number of eggs
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	

Scale  =4 eggs

a) On which day was the highest number of eggs collected?
b) How many eggs were collected on Tuesday and Friday?
c) How many more eggs were collected on Saturday than on Wednesday?
d) Find the total number of eggs Musa collected altogether.

4. The picture graph below represents the number of balls given to different schools.

schools	Number of balls
Irenda p/s	
Adyel p/s	
Lira p/s	
Arua p/s	

Scale  = 3 balls

a) Which school got the least number of balls?
b) How many balls did Adyel p/s get?
c) Which school got the biggest number of balls?

d) How many more balls did Arua p/s got than Irenda p/s?

e) Find the total number of balls that were given out altogether?

LESSON VII

CONTENT: Drawing picture graphs. (Anew mk bk4 pg 130)

1. Draw a picture graph to represent the following information

Henry has 30 pineapples, Mary has 45 pineapples, Irene has 20 pineapples, and Sam has 35 pineapples. Each pineapple represents 5 pineapples.

Henry's pineapples on the graph $=\frac{30}{5}$ = 6 pineapples

Mary's pineapples on the graph = $\frac{45}{5}$ = 9 pineapples

Irene's pineapples on the graph = $\frac{20}{5}$ = 4 pineapples

Sam's pineapples on the graph $\frac{35}{5}$ = 7 pineapples.

Henry	
Mary	
Irene	
Sam	

ACTIVITY

1. Show the number of eggs each of the following have on a picture graph. Scale  = 2 eggs.

Amos- 20 eggs, John-18 eggs, Deo – 24 eggs, and Phiona have 30 eggs.

2. Draw a picture graph to show the number of pupils for ; Nakivubo p/s – 800 pupils, Gulu p/s -1200 pupils, Lira p/s-2000 pupils, Mbarara p/s 1000 pupils,

 = 200 pupils

3. Draw a picto graph showing number of balls received by schools in each division; Nakawa division – 400 balls, Makindye division- 200 balls, Kawempe division -300 balls, Lubaga division-250 balls. Each ⚽ =50 balls
4. Draw a picture graph showing the number of tomatoes each has. Each tomato represents 6 tomatoes.
   Sarah – 18 tomatoes, Peter – 24 tomatoes, James -30 tomatoes, Mary – 12 tomatoes, Jane – 6tomatoes

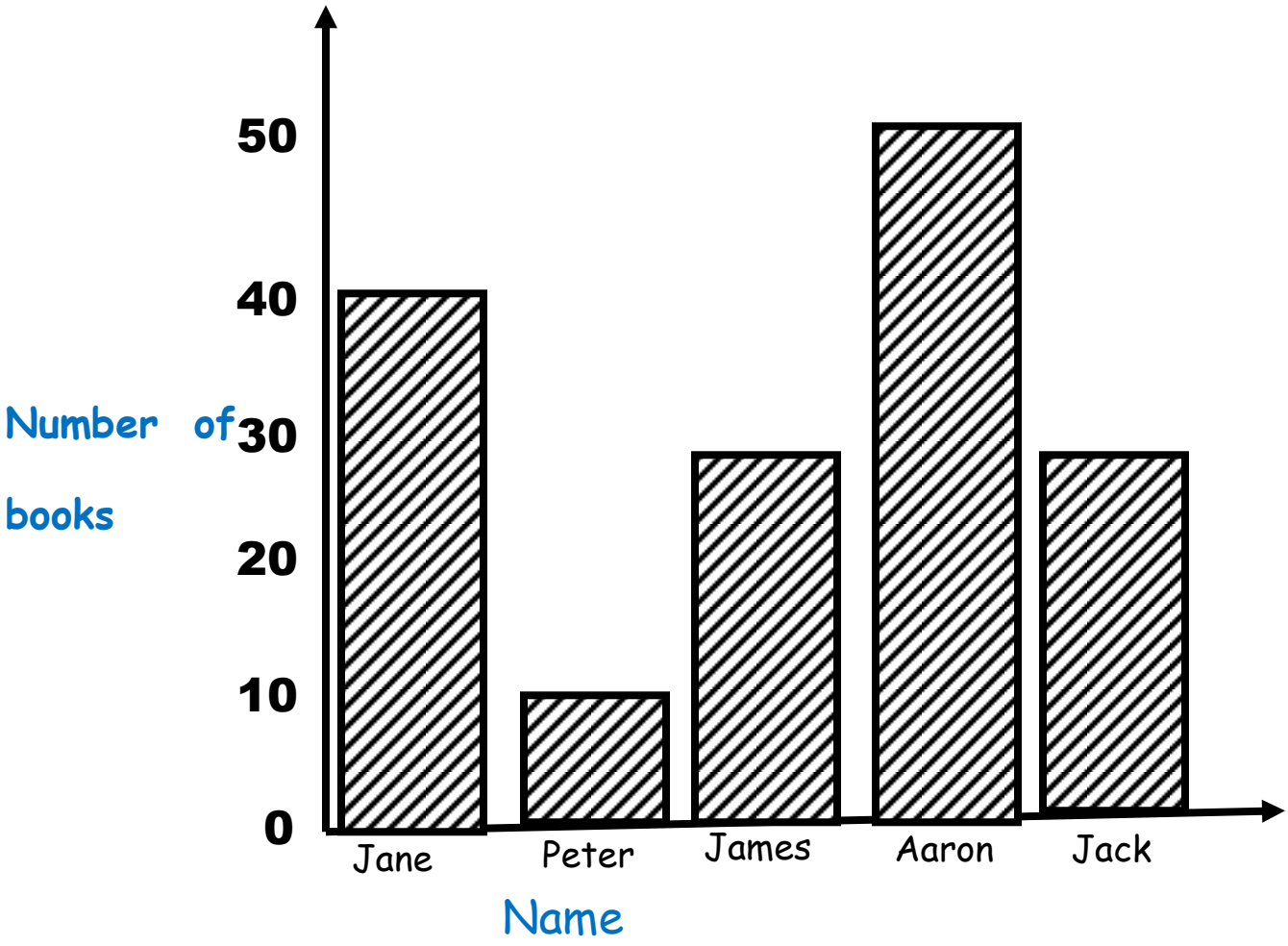
LESSON VIII

Subtopic: Bar graphs (Anew mk bk pg 131- 132)

Content: Interpreting bar graphs

Example

1. Study the bar graph below and answer the questions that follow.



Questions

1. Who received the smallest number of books?
   Peter received the smallest number of books.
2. Who received the highest number of books?
   Aaron received the highest number of books.
3. Which two children received the same number of books?
   James and Jack

4. How many books were received by Jane and Aaron altogether?

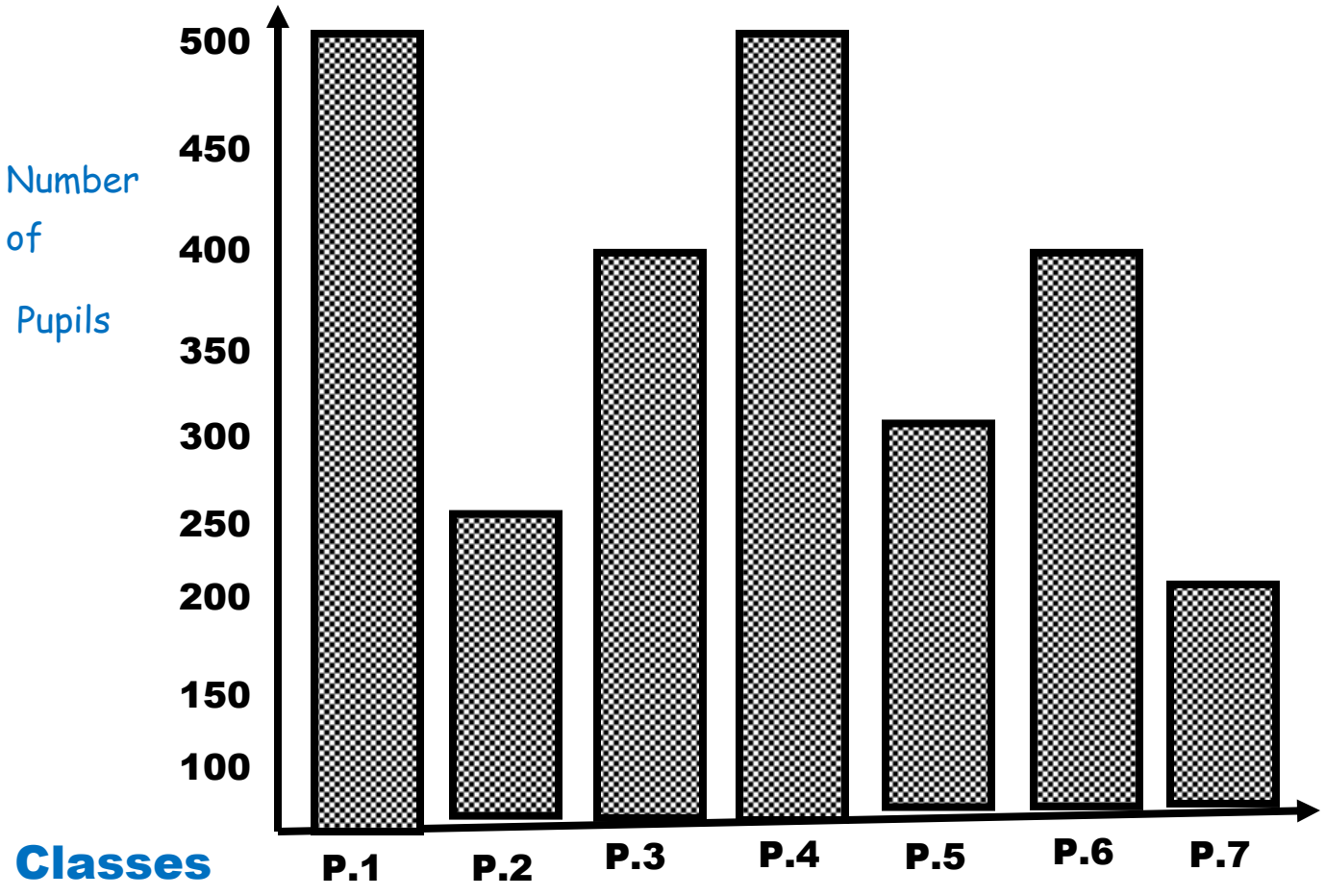
Jane 40 books
Aaron + 50 books
90 books

5. What is the difference between the highest and the lowest number of books?

Highest 50 books
Lowest - 10 books
Difference 40 books

ACTIVITY

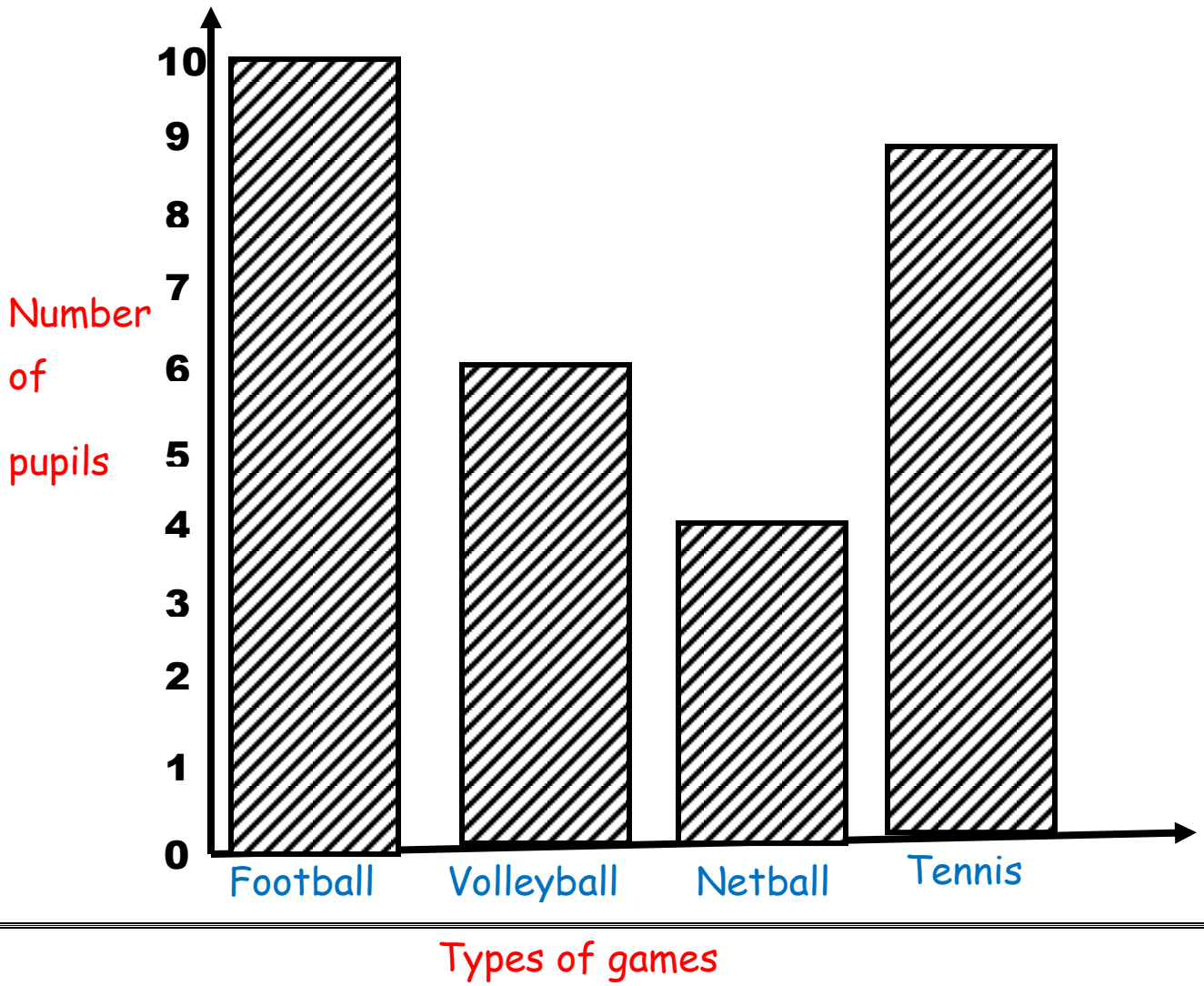
1. The graph below shows the number of pupils in Mbuya parents' school. Study it carefully and use it to answer the questions that follow.



QUESTIONS:

a) Which class has the least number of pupils?
b) How many pupils are in p.6?
c) Find the difference between the highest and the lowest number of pupils who attended school.
d) Find the total number of pupils in P.1 and P.2
e) Which two classes have the highest number of pupils?

2. The graph below shows the number of pupils who play games in P.4.



Questions:

a) How many pupils play football?
b) How many pupils play volleyball?
c) Which game has the least number of players?
d) Which game has the biggest number of players?
e) Find the total number of pupils who play games.
f) How many pupils play netball more than volleyball?
g) What is the most liked game?
h) What is the least liked game?

LESSON IX

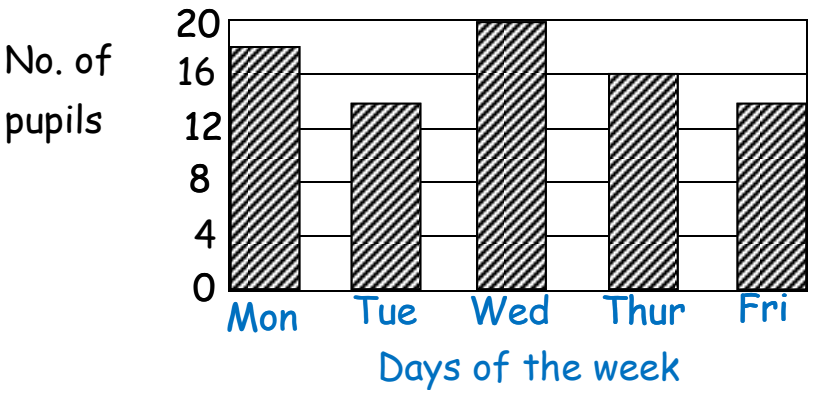
Content: Drawing bar graphs (Anew Mk bk4 pg 133)

To draw any graph, first determine the scale on the vertical axis

Examples

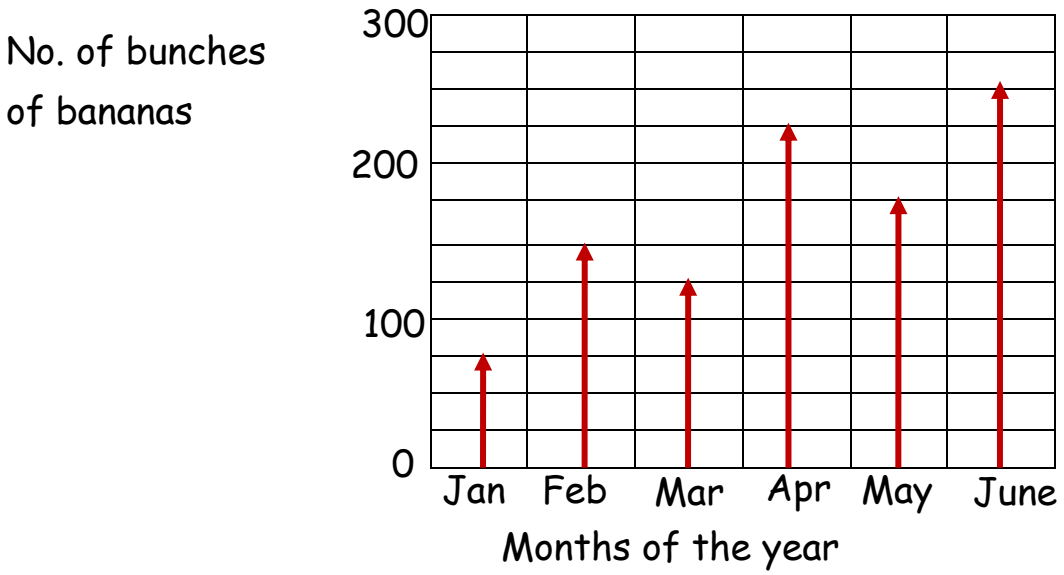
1. The table shows the number of pupils who were present for a week. The class has 20 pupils. Draw a bar graph for the information.

Days	Monday	Tuesday	Wednesday	Thursday	Friday
No. of pupils	18	14	20	16	15



2. The table shows the number of bunches of bananas sold in the first 6 months of the year at Guma's farm.

Months	Jan	Feb	Mar	Apr	May	June
No. of bunches	80	140	120	220	180	240



ACTIVITY

Read and draw bar graphs.

1. In a school , the number of pupils in each class are as follows:

classes	p.1	p.2	p.3	p.4	p.5	p.6	p.7
No. of pupils	50	60	70	40	55	35	25

Use scale 1 square = 10 pupils

2. Draw a bar graph to show the number of chicken the following children have; John – 15 chicken, Simon – 20 chicken, Mary – 30 chicken, Dorah – 25 chicken Peter – 10 chicken.
Use 1 small square = 5 chicken.

c) Find the total number of chicken the children have.

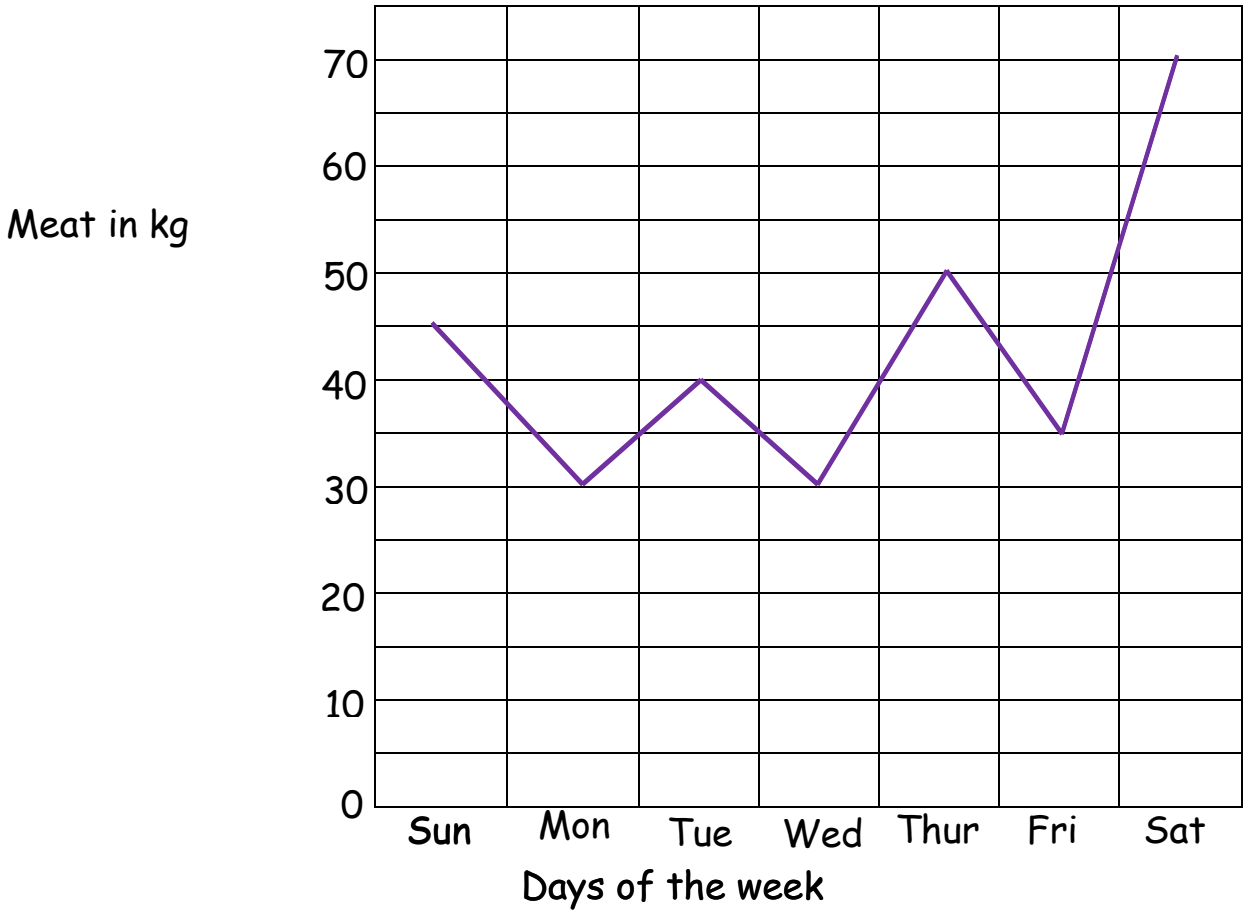
LESSON X

Subtopic: Line graphs

Content: Interpreting line graphs (Anew Mk bk4 pg 134-135)

Examples

The graph below shows meat sales at Ankunda's butcher. Use it to answer the questions that follow.



1. How many kilogrammes of meat did Ankunda sell on Tuesday?

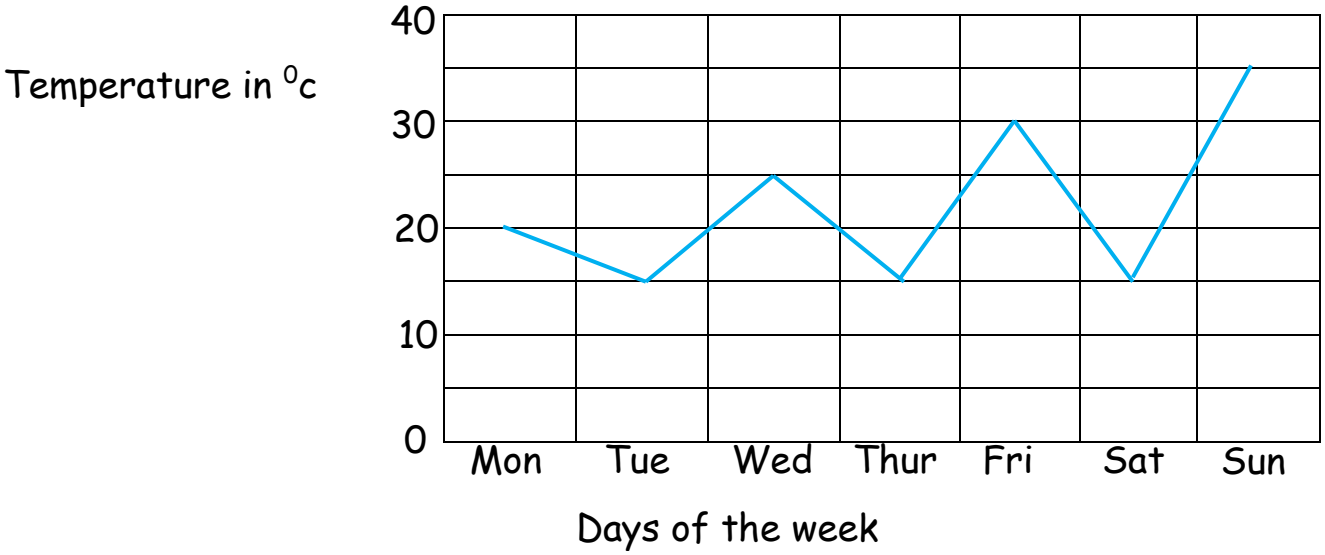
   He sold 40 kg on Tuesday.

2. On which days did Ankunda sell the least amount of meat?
   Wednesday and Monday.

3. Find the amount of meat that Ankunda sold that week
   = (45 + 30 + 40 + 30 + 50 + 35 + 70) kg
   = 300 kg
4. How many more kilogrammes of meat did Ankunda sell on Saturday than Sunday?
   70 kg – 45 kg = 25 kg more.

ACTIVITY

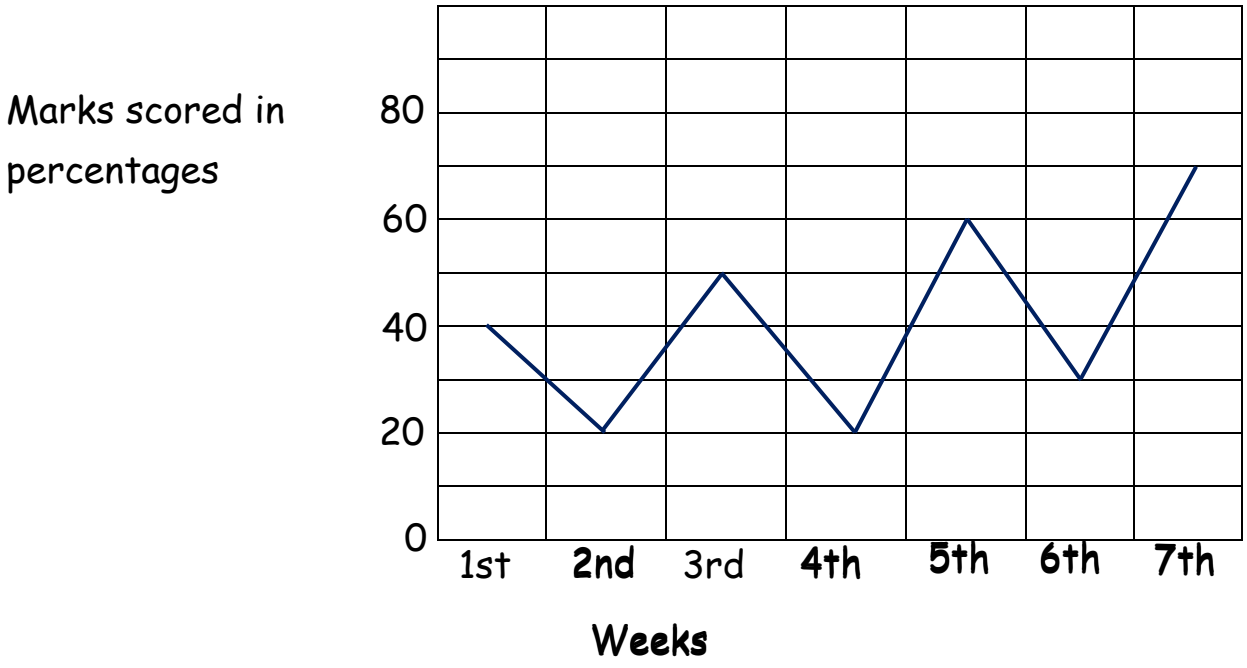
1. The graph shows the temperature of a place recorded for a week.



a) What was the highest temperature of the week?
b) What was the lowest temperature of the week?
c) Which two days had the same temperature records?
d) By how many degrees was Wednesday hotter than Sunday?
C) Find the total temperature that week?

e) How many more degrees were recorded on Sunday than on Tuesday?

2. The graph below shows the marks Moses scored in the weekly Mathematics tests. Study it and answer questions that follow.



a) What was Moses' highest score?
b) What did Moses score in the third week?
c) What was Moses' lowest score?
d) How many marks did Moses score in the 7^{th} week?
e) In which week did Moses score 35 marks?
f) Find the total marks he scored in the 1^{st}, 2^{nd} and 7^{th} weeks?

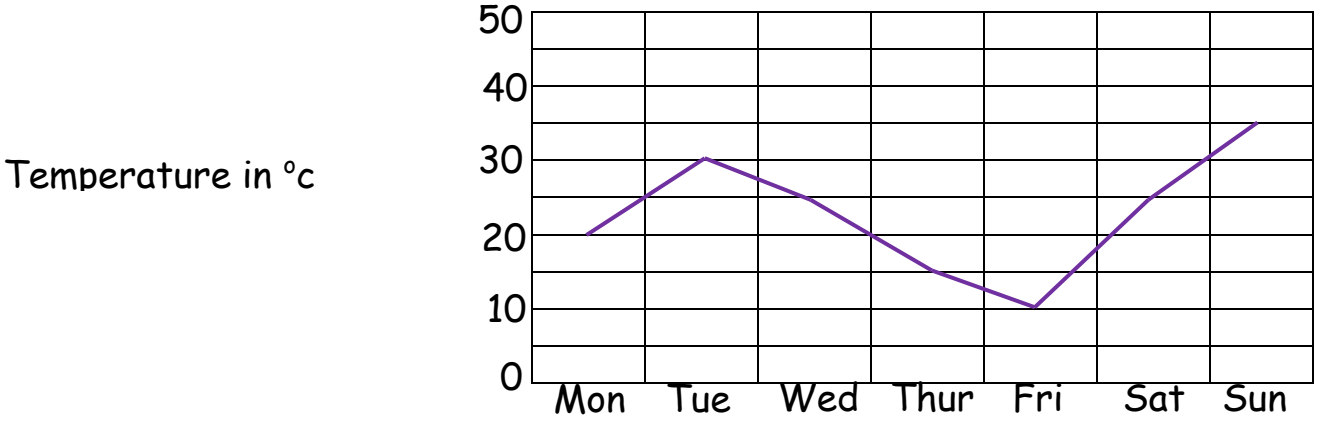
LESSAON XI

Content: Drawing line graphs (Anew Mk Bk 4 pg 136)

Example

1. The table shows the temperature recorded on different days of a certain week. Use the information in the table to draw a line graph.

Days	Mon	Tue	Wed	Thur	Fri	Sat	Sun
Temp.in °c	20°c	30°c	25°c	15°c	10°c	25°c	35°c



Draw line graphs

1. The table shows points which Arula scored in a tennis competition. Use the information to draw a line graph.

Round	1st round	2nd round	3rd round	4th round	5th round	6th round
Points scored	6	4	8	5	7	10

2. Nyakato recorded the dresses she sold at her boutique as follows; Monday -9 dresses, Tuesday -5 dresses, Wednesday -8 dresses, Thursday -12 dresses, Friday -4 dresses, Saturday -12dresses. Represent the data above on a line graph.
   a) How many dresses were sold in the first three days?
   b) How many more dresses were sold on Saturday than on Friday?

LESSON I

THEME: MEASUREMENTS

TOPIC 7; MONEY

SUBTOPIC: Uganda currency

Content: Recognition of money (Anew MK ppls BK 4pg 133)

Money is a medium of exchange.

The medium of exchange (currency) used in Uganda is called shillings

Types of money used in Uganda

i) coins

ii) papers (notes)

COINS

- 50 shilling coin
- One hundred shilling coin
- Two hundred shilling coin
- Five hundred shilling coin
- One thousand shilling coin

PAPER NOTES

- One thousand shilling note.
- Two thousand shilling note.
- Five thousand shilling note.
- Ten thousand shilling note.
- Twenty thousand shilling note.
- Fifty thousand shilling note.

Activity

Write down two features found on the following coins and notes used in Uganda.

a) 200 shilling coin

b) 500 shilling coin

c) 2000 shilling note

d) 50000shilling note

LESSON II

Content: Conversion of money (Anew MK ppls BK 4 pg 134)

Examples

1. How many sh. 100 coins are in sh. 2,000 note?

No. 100 shilling coins = $\frac{2000}{100}$

= 20 coins

2. Tom has 5notes of sh.4000. How much money does Tom have?

Sh. 4,000

x 5

Tom has sh. 20, 000

3. How many 500 shilling coins can be obtained from 20,000 shilling note?

No. of 500 shilling coins = $\frac{40}{\cancel{20},000}{\cancel{500}}$

= 40 coins

ACTIVITY

1. Jane has 8 coins of sh. 200. How much money does Jane have?
2. How much money can Peter get from 20- five thousand shilling notes?
3. How many 500 shilling coins can be obtained from 50,000 shilling note?
4. Mary changed a twenty thousand shilling note into two hundred shilling coins. How many coins did he get?
5. Tito found 3-five hundred shilling coins in his pocket. How much money was that?
6. Mummy has 2-twenty thousand shilling notes. How much money does Mummy have?

LESSON III

Content: Addition of money (A new MK ppls BK4 pg 137)

Examples

1. A man had 4800/= and he was given sh. 1200 by his friend. How much money did he have altogether?

Sh. 4800
+ Sh. 1200
Sh. 6000

A man had sh. 6000 altogether.

2. I have 1 coin of sh. 500 and 2 notes of sh.1000. How much money do I have?

Sh. 500
Sh. 1000
+ Sh. 1000
Sh. 2,500

3. Add: sh. 170 + sh. 250.

$$\begin{array}{r} {\scriptstyle 1}\\ \text{Sh. } 150 \\ +\ \text{Sh. } 250 \\ \hline \text{Sh. } 400 \end{array}$$

ACTIVITY

1. Add: sh. 200 + sh. 500
2. I had sh. 450 and I was given sh. 1350. How much do I have altogether?
3. A porter earns sh. 1500 in the morning and sh. 2700 in the afternoon. How much does he earn altogether?
4. Nelly had sh. 4530 and Mary had sh. 3470. How much money did the two children have?
5. Workout the sum of sh. 5450 and sh. 1750
6. Camilla received sh. 6,700 from the mother and sh. 12,300 from the father. How much money did she receive altogether?

LESSON IV

Content: **Subtraction of money** (Anew Mk ppls Bk 4 pg 138)

1. How much change will you get from a one thousand Shilling note if you spend sh. 350?

$$\begin{array}{rl} & {\scriptstyle 0\ 9\ 10} \\ \text{Amount} \rightarrow & \text{sh. } \cancel{1},000 \\ \text{Spent} \rightarrow & -\ \text{sh. } 350 \\ \hline & \text{Sh. } 650 \end{array}$$

2. Mariam had sh.25, 000. She spent sh. 6,500. How much change did she get?

$$\begin{array}{r} {\scriptstyle 1\ 14\ 10} \\ \text{Sh. } \cancel{25},000 \\ -\ \text{Sh. } 6,500 \\ \hline \text{Sh. } 18,500 \end{array}$$

3. Brian had sh. 7,000. If he gave sh. 3700 to Angel, how much did he remain with?

6 10
sh. ~~7~~,000
- sh. 3700
sh. 3300

ACTIVITY

1. Take away sh. 750 from 1,450
2. Martha had one thousand shilling note and she spent sh.550. What was her change?
3. Jovat had a ten thousand shilling note and gave out sh. 2500 to Akello. How much money did Jovat remain with?
4. I had sh. 18000 and I spent sh.8900. How much change did I get?
5. Subtract: sh. 17450
- sh. 6350

LESSON V

Content: Multiplication of money (Anew MK ppls BK 4 pg 139)

Examples

1. The cost of 1 loaf of bread is sh. 1800. Find the cost of 3 loaves.

Sh. 1800
x 3
Sh. 5400

2. The price of a bar of soap is sh. 1,200. How much do you pay for 5 bars of soap?

1 bar of soap costs sh.1, 200.

5 bars of soap cost sh. 1, 200 x 5

You pay Sh. 6, 000

1
Sh. 1, 200
x 5
Sh. 6, 000

3. A kilogramme of margarine costs sh.4, 500. How much will one pay for 2 kilogrammes?

1 kg → sh. 4, 500

2 kg → sh. 4, 500

x 2

Sh.9, 000

ACTIVITY

1. One pen costs sh. 1,500. H0w much will 6 pens cost?
2. Find the cost of 5 exercise books if one book costs sh.600.
3. A tin of shoe polish costs sh. 2,700. How much will you pay for 9 such tins?
4. Okello bought 8 litres of petrol at sh. 8000 each. How much did he pay?
5. A bottle of soda costs sh. 900. A restaurant sold 8 bottles of soda. How much money did the cashier get?
6. A bag of charcoal costs sh. 14,000. Find the cost of 6 bags of the same charcoal.

LESSON VI

Content: Division of money (A new MK ppls BK 4 pg 140)

Examples

1. 4 books cost sh. 1, 200. Find the cost of one book?

4 books → sh. 1,200.

1 book → sh. 1, 200 / 4 = 300

1 book costs sh. 300

2. A man bought a basket of 5 mangoes at sh. 1, 000. How much did he pay for each mango?

5 mangoes cost sh. 1, 000

1 mango costs sh. $\frac{1,000}{5} = 200$

1 mango costs sh. 200

3. Aisha paid sh. 4, 200 for 6 bottles of soda. Find the price of each bottle of soda.

6 bottles cost → sh. 4, 200

1 bottle costs → sh. $\frac{4,200}{6} = 700$

1 bottle costs sh. 700

ACTIVITY

1. 6 pens cost sh. 1, 200. What is the cost of each pen?
2. The cost of 3 books is sh. 1, 500. Find the cost of one book.
3. 4 apples cost sh. 2,400. What is the cost each apple?
4. A farmer sold 8 bags of coffee at sh. 40, 000. What was the price of each bag?
5. A basket of oranges costs sh. 1, 800. What is the cost of one orange?
6. Nakandi bought 3 litres of paraffin at sh. 5, 400. What is the cost of 1 litre of paraffin?
7. A shopkeeper sold 7 pens at sh. 2, 100. What was the cost of each pen?

LESSON VII

Content: Shopping bills and Balances. (A new MK ppls BK 4pg 141)

Example

1. Mrs. Outa had sh. 10, 000 and bought the following items.
   Milk at sh. 1, 000, potatoes sh. 5, 000, fish sh. 1, 500.
   How much money did she remain with?

Milk → sh. 1, 000	amount before → sh. ~~10~~ 9 10,000
Potatoes → sh. 5, 000	amount spent → - sh. 7, 500
Fish → + sh. 1, 500	sh. 2, 500
Spent Sh. 7,500	

.2 .James went to the market and bought the following items.

A pair of canvas shoes for sh. 3, 700
A pair of sports short for sh. 3, 300
A T-Shirt for sh. 1, 800
A pair of socks at sh. 1, 200.
How much did he pay altogether?

Canvas shoes →	sh. 3 2, 700
Sports shorts →	sh. 3, 300
T. shirts →	sh. 1, 800
Socks →	+ sh. 1, 200
	Sh. 10,000

ACTIVITY

1. Alex went to the market and bought the following items.
   Sugar sh. 3, 000,
   Salt sh. 1, 000,
   Blue band sh. 2, 500,
   Rice sh. 3,200

Irish potatoes sh. 5, 000.

a) Work out the cost of the items.

b) If Alex had a twenty thousand shilling note. What was his change?

2. Aisha went to the market and bought the following items;

   3 bunches of matooke at sh. 4, 000 each

   2kg of sugar at sh. 3, 500 per kg

   2 litres of cooking oil at sh. 1, 000 each litre

   a) How much did Aisha pay for all the items?

   b) Workout Aisha change.

3. Mummy went shopping with sh. 30, 000 and bought the following items.

   2kg of meat sh. 6, 000 per kg

   A litre of milk at sh. 1, 200

   3 kg of sugar at sh. 2000 per kg

   a) Calculate her total expenditure.

   b) What was her change?

4. Mary bought the following items

   5kg of maize flour at sh. 4, 000

   1kg of salt at sh. 1, 000

   2 bars of soap at sh. 3, 000 a bar

   3 loaves of bread at sh. 4, 000 per loaf.

   a) How much money did Mary pay for bread?

   b) How much money did she pay for the items?

   c) Workout her change if she had sh. 40, 000

LESSON VIII

Content: Completing shopping bills (Anew Mk ppls Bk 4 pg142)

Multiply quantity by the unit cost to get the total cost.

- Divide the total cost by the quantity to get the unit cost.
- Divide the total cost by the unit cost to get the quantity.

Examples

1. Complete the bill table below.

ITEM	QUANTITY	UNIT COST	TOTAL
Books	5	Sh. 300	Sh. 1,500
Pens	2	Sh. 1, 000	Sh. 2, 000
Rubber	2	Sh. 600	Sh. 1, 200
Total expenditure			Sh. 4,700

Books

Sh. 300
x 5
Sh. 1,500

Pens

Sh. 2, 000 ÷ 2 = 1000
1
Sh. 1000

Rubber

Sh. 1,200 ÷ 2 = 600
1

Sh. 1,500
Sh. 2,000
+ Sh. 1, 200
Sh. 4,700

2. Complete the shopping bill below for Mr. Alex

ITEM	QUANTITY	UNIT COST	TOTAL
Sugar	2kg	Sh. 2, 500	Sh. 5, 000
Salt	$\frac{1}{2}$ kg	Sh. 1, 000	Sh. 500
Bread	2 loaves	Sh. 3,500	Sh. 7, 000
Tea leaves	$\frac{1}{2}$ kg	Sh. 1, 800	Sh. 900
Total expenditure			Sh. 13, 400

Sugar

Sh. 2, 500
x 2
Sh. 5, 000

Salt

sh. 500 ÷ $\frac{1}{2}$
sh. 500 x $\frac{2}{1}$
sh. 1,000

Bread

sh. 3,500
x 2
Sh. 7, 000

Tea leaves

sh. 1, 800 x 900 x $\frac{1}{2}$
sh. 900

Total

1
Sh.5, 000
Sh.7, 000
Sh. 900
+ Sh. 500
Sh. 13,400

c)If Alex was given sh. 1, 600 as his change, how much money did he have at first?

Amount at first = Sh. $1\overset{1}{3}$, 400
+ Sh. 1, 600
Sh. 15, 000

ACTIVITY

1. Copy and complete the shopping bill tables below

ITEM	QUANTITY	UNIT COST	TOTAL
Pencils	3	Sh. 400	Sh. _____
Pens	2	Sh. _____	Sh. 5, 000
Books	_____	Sh. 200	Sh. 2, 400
Total expenditure			Sh. _____

2

ITEM	QUANTITY	UNIT COST	AMOUNT
Beans	3kg	Sh. 1, 000	Sh. _____
G. nuts	5kg	Sh. _____	Sh. 10, 000
Soya	_____	Sh. 1, 800	Sh. 3, 600
Sim sim	1kg	Sh. 2, 400	sh._____
Total expenditure			Sh. _____

3

ITEM	QUANTITY	UNIT COST	TOTAL
Bread	3 loaves	Sh. 1,200	Sh. _____
Cooking oil	2 litres	Sh. _____	Sh. 2, 400
Meat	500 g	Sh. 6, 000	Sh. _____
Beans	_____	Sh. 800	Sh. 6, 400
Rice	2 kg	Sh. 1, 800	Sh.
Total expenditure			Sh

LESSON IX

SUBTOPIC: Profit and Loss (Anew mk ppls bk4 pg143)

Content: Finding Profit

Profit is made when we sell an item at a price higher than its cost price / buying price.

Profit = selling price – buying price/ cost price

Profit = SP – BP/CP

Examples

1. A shopkeeper bought a book at sh. 15o and sold it at sh. 200. What profit did he get?

   Profit = Sp - Bp

   Profit = sh. 200 – sh. 150

   Profit = sh. 50

2. The cost of a radio is sh. 12, 300. Musa sold the same radio at sh. 15, 000. Find his profit.

Profit = SP – BP

SP = Sh. 15, 000 (4, 10)

BP = -Sh. 12, 300

Sh. 2, 700

ACTIVITY

1. Ankunda bought a book at sh. 350 and sold it at sh. 250. What amount did he lose?
2. Ssozi bought a cup at sh. 3, 000 and sold it at sh. 3, 500. Calculate the profit he made.
3. Kizza bought a goat at sh. 40, 000 and sold it at sh. 53, 000. How much profit did he make?

4. Amos bought a coat at sh. 35, 000 and later sold it at sh. 42,000. Find how much his profit was.
5. Ouma bought a dictionary at sh. 13, 700 and later sold it at sh. 20,000. How much profit did she make?
6. The cost price of a shirt is sh. 15, 000. Mary sells the same shirt at sh. 22, 000. How much profit does she make?

LESSON X

Content: Finding loss (Anew mk bk 4 pg 144)

Loss is got when you sell an item less than what you paid for it.

Loss = Buying price – Selling price.

Loss = Bp - Sp

Examples

1. The cost price of a shirt is sh. 22, 000. Maria sells the same shirt at sh. 15, 000. How much loss

Loss = BP – SP

BP = sh. 22, 000 (1 12)

Sp = -sh. 15, 000

Sh. 7, 000

2. Rodgers bought a book at sh. 350 and sold it at sh. 250. What amount did he lose?

loss = BP – SP

Loss = sh. 350 – sh. 250

Loss = sh. 100

ACTIVITY

3. Opilli bought a book at sh. 1, 200 and later sold it at sh. 800. What was his loss?
4. Ssozi bought a cup at sh. 3, 500 and sold it at sh. 3, 000. Calculate the loss he made.
5. Batte bought a bag at sh. 12, 500 and sold it at sh. 10, 000. What loss did Batte make?

6. Akide bought a chair at sh. 42, 750. She sold this chair at sh. 39,000. Calculate the loss she made.
7. Kato bought a pen at sh. 1, 500 and sold it at sh. 700. Workout his loss.

LESSON I

TOPIC 12; ALGEBRA

SUBTOPIC: USING LETTERS FOR NUMBERS (Anew Mk 2000 ppls bk4 pg 251)

Content: Addition of letters

Examples

1. Add : 2y + 3y +4y

2y+3y+4y
=5y+4y
= 9y

3. Simply 2b + 4b + 6b

2b + 4b + 6b
= 6b + 6b
= 12b

2. Add: m + m + m +m

m + m + m + m
= 2m + 2m
= 4m

ACTIVITY

simplify the following

1. 9x + 2x
2. 6p + 2p + 4p
3. 5k + k + 7k
4. 4a + 3a + 2a + 5a
5. 8m + 2m + 5m + m
6. 4c + c + 3c + 7c

LESSON II

Content: Subtraction of letters

Example

1. Workout 10k – k

= 10k - k
= 9k

2. Simplify: 11t – 2t

= 11t – 2t
= 9t

3. Simplify: 7p – 6p

= 7p – 6p
= p

ACTIVITY

Simplify the following

1. 18x-7x 2. 5m -3m 3. 14q – 8q 4. 9y – 7y 5. 5b – 4b

LESSON III

Collecting like terms (Mk 2000 ppls Bk 4 pg 252)

Examples

1. Simplify: 4x + 8y + 2x + 5y

   4x + 8y + 2x + 5y

   = 4x + 2x + 8y + 5y

   = 6x + 13y

2. Workout: 9m + 7n -2m -3n.

   9m + 7n – 2m -3n

   = 9m – 2m + 7n -3n

   = 7m + 4n

3. Simplify: x + y + x +3y + x

   x + y + x +3y + x

   = x + x + x + y + 3y

   = 3x + 4y

ACTIVITY

Simplify the following:

1. 4f + 2k -2f + 4k 2) 2b + 3t + 3b –t 3) 3n + 7 + n – 4
   4) 7h -8m + y + 10m 5) 2d + d – 2c 6) 9c + 11 k – 4c – 5k
   7) 4z + 7m +z +6m – 3z 8) 6a – 4p + 2a + 3p

LESSON IV

SUBTOPIC: **Substitution** (A new Mk 2000 ppls bk4 pg 253)

To substitute is to replace.

Examples

1. If x = 3, y = 4, z = 5. Find the value of :

a) x + y + z

= 3 + 4 + 5

= 7 + 5

= 12

b) x + y - z

= 3 + 4 -5

= 7 - 5

= 2

2. Given that h = 2 Find the value of 5h

5h = 5 x h

= 5 x 2

= 10

3. If x = 10, what is the value of $\frac{x}{2}$

$\frac{x}{2}$ = 10÷ 2

= 5

ACTIVITY

1. If a = 2, b = 3, c = 4. Find the value of;

a) a + b + c b) a + b – c c) a + c – b d) a x b

2. Find the value of 2x + 5y if x = 3 and y = 4

3. If a = 12.

Find the value of;

i) $\frac{a}{3}$ ii) $\frac{a}{2}$ iii) $\frac{24}{a}$ iv) $\frac{1}{2}$ Of a

4. Find the value of 4h if h = 9

LESSON V

SUBTOPIC: SIMPLE EQUATIONS

Content: Finding the missing number in addition (Anew Mk bk4 pg 186-187)

Examples

1. Fill in the missing number.

□ + 4 = 7

□ + 4 = 7

□ + 4 -4 = 7 -4

□ + 0 = 3

□ = 3

2. Find the missing number

x + 23 = 47

x + 23 = 47

x + 23 – 23 = 47 - 23

x + 0 = 24

x = 24

3. Fill in the missing number

6 + ☐ = 18

6+ ☐ = 18

6-6 + ☐ = 18 – 6

0 + ☐ = 12

☐ = 12

2. Find the missing number

27 + m = 53

27 + m = 53

27 -27 + m = 53 - 27

0 + m = 26

m = 26

ACTIVITY

Find the missing numbers

1. ☐ + 8 = 10
2. b + 5 = 7
3. ☐ + 16 = 40
4. p +61 = 79
5. 12 + ☐ = 28
6. 21 + k = 37
7. 45 + ☐ = 61
8. 52 + a = 93

LESSON VI

Content: Finding the missing number in subtraction

(Anew Mk bk4 pg 188 – 189)

Examples

1. Fill in the missing number.

☐ - 8 = 15

☐ - 8 = 15

☐ - 8 + 8 = 15 + 8

☐ - 0 = 23

☐ = 23

2. Find the missing number

k – 27 = 12

k – 27 = 12

K – 27 + 27 = 12 + 27

k = 39

3. Find the missing number

7 – y = 5

7- y = 5

y = 7 – 5

y = 2

4. Fill in the missing number

18 - ☐ = 11

18 - ☐ = 11

☐ = 18 - 11

☐ = 7

5. 49 – y = 24

7. 78 - ☐ = 36

ACTIVITY

Solve the following:

1. x – 4 = 6
2. ☐ - 1 =4
3. 15 - ☐ = 8
4. m – 6 = 7

6. ☐ – 22 = 47

LESSON VII

Content: Solving equations involving Multiplication (Anew Mk bk4 pg190-191)

Examples

1. Fill in the missing number.

3 x ☐ = 12

3 x ☐ = 12

☐ = 12 ÷ 3

☐ = 4

2. Solve: 4 x p = 20

4 x p = 20

$\frac{4p}{4} = \frac{20}{4}$

$p = 5$

3. Fill in the missing number

☐ x 4 = 32

☐ x 4 = 32

☐ = 32÷ 4

☐ = 8

3. Solve; d x 9 = 108

d x9 = 108

d = 108 ÷ 9

d = 12

ACTIVITY

1. Fill in the missing numbers:

a) $3x\square = 21$

b) $4x\square = 28$

c) $\square \times 6 = 24$

d) $\square \times 8 = 96$

2. Solve;

a) $4 \times m = 16$

b) $b \times 7 = 56$

c) $9 \times y = 36$

d) $w \times 7 = 42$

LESSON VIII

Subtopic: Forming equations (A new Mk bk4 pg 194-195)

Content: Forming and Solving Simple equations.

Examples

1. When 5 is taken away from a number, the answer is 12. What is the number?

   Let the number be a

   $a - 5 = 12$

   $a - 5 + 5 = 12 + 5$

   $a - 0 = 17$

   $a = 17$

2. When 7 is added to a number, the answer is 9.

   What is the number?

   $\square + 7 = 9$

   $\square + 7 - 7 = 9 - 7$

   $\square = 2$

3. When a number is multiplied by 6, the answer is 30.

   What is the number?

   Let the number be p

   $P \times 6 = 30$

   $P \times 6 = 30$

   $\frac{6p}{6} = \frac{30}{6}$

   $P = 5$

4. When a number is divided by 7, the answer is 9.

   What is the number?

   $\square \div 7 = 9$

   $\square = 9 \times 7$

   $\square = 63$

ACTIVITY

1. Add 3 to a number, the answer is 10. What is the number?
2. Kintu had some sweets. He was given 5 more sweets. He had 11 sweets altogether. How many sweets did he have before?
3. A number added to 12 gives 20. Find the number.
4. When 8 is subtracted from a number, the answer is 7. What is the number?
5. When u take 9 away from a number, you remain with 9. What is the number?
6. A number is multiplied by 8 and the product is 32. Find the number?
7. After dividing 42 by a number, the answer is 6. What is the number?
8. Multiply 6 by a number the product is 72. Find the number.
9. When you divide 30 eggs equally among a group of boys, each gets 6 eggs. Find the number of boys?

LESSON I

TOPIC 8: TIME

SUBTOPIC: DAYS OF THE WEEK (Anew Mk ppls bk4 pg 146- 147)

Content: Changing weeks to days

There are 7 days in a week.

- Sunday – Sun
- Monday – Mon
- Tuesday – Tue
- Wednesday – Wed
- Thursday – Thur
- Friday – Fri
- Saturday – Sat

A week starts on Sunday and ends on Saturday.

Changing weeks to days.

When changing Weeks to days we multiply.

Examples

1. How many days are there in 12 weeks?

   1 week = 7days

   12 weeks = (12x7) days

   = 84 days

   $$\begin{array}{r} {\scriptstyle 1}\\ 12 \\ \times\ 7 \\ \hline 84 \end{array}$$

2. Change 4 weeks to days.

   1 week = 7 days

   4 weeks = (4x7) days

   = 28 days

3. Maize plants take 16 weeks to mature. How many days do they take?

   1 week = 7 days

   16 weeks = (16x7) days

   = 1 6x7

   = 112 days

ACTIVITY

1. Change the following weeks to days
   a) 3 weeks b) 6 weeks C) 11 weeks d) 15 weeks
2. Beans plants take 8 weeks to mature. How many days do they take?
3. Our sister is 20 weeks old. How old is she in weeks?
4. Francis is to spend 36 weeks preparing Maths lesson notes. For how many days will he spend?
5. Promise spent 52 weeks in the village. How many days did she spend there?

LESSON II

Content: changing days to weeks (Anew Mk ppls bk4 pg 148)

When changing days to weeks, we divide total number of days by number of days in each week

Examples

1. Change 49 days to weeks.
   7 days = 1 week
   49 days = (49÷7) weeks
   = 9 weeks

2. Nakate will spend 91 days at School. How many weeks will she stay at school?
   7days = 1 week
   91 days = (91÷ 7) weeks
   = 13 weeks

3. Change 63 days to weeks
   7 days = 1 week
   63days = (63÷ 7) weeks
   = 9 weeks

ACTIVITY

1. Change the following days to weeks
   a) 175 days b) 21days c) 105 days c) 42 days d) 98 days
2. A ship took 14 days to travel from Dubai to Mombasa. How many weeks did it spend in the way?
3. Allen planted cassava and harvested it after 224 days. How many weeks did cassava take to mature?

LESSON III

Content: Addition of Days and Weeks (Anew Mk bk4 pg180 – 181)

Examples

1. Add

weeks	Days
1	3
+ 2	5
4	1

3+5 = 8
8÷7 = 1 rem 1
1 + 1 + 2 = 4

2. A carpenter took 5 weeks 5 days to make a wooden bed and 4 weeks 6days to make a cupboard. How long did the carpenter take on both?

Weeks	Days
5	5
+ 4	6
1 0	4

5 + 6 = 11
11 ÷ 7 = 1 rem 4
1 + 5 + 4 = 10

3. A ship takes 5 weeks 2 days to sail from Mombasa to Maputo and 3weeks 6 days to Cape Town. How long does this journey take?

Weeks	Days
5	2
+ 3	6
9	1

2 + 6 = 8
8 ÷ 7 = 1 rem 1
1 + 5 + 3 = 9

ACTIVITY

1. Work out the following :

a)

Weeks	Days
2	4
+4	5

b)

weeks	Days
2	4
+ 11	4

c)

weeks	Days
9	5
+2	2

d)

Weeks	Days
15	6
+12	4

e)

Weeks	Days
9	5
+ 2	2

2. Betty spent her leave in Masaka and Kampala. How long was her leave if she spent 1 week 1 day in Masaka and 7 weeks 2 days in Kampala?
3. James spent 4 weeks 3 days fixing the root of his house and 1 week 5 days painting it. How long did all this take?
4. Brandon spent 2weeks 3 days at his uncle's home and 1 week 6 days at his friend's home. How long was he away from home?

LESSON IV

Content: Subtraction of days and weeks

(Anew Mk bk4 pg 181 – 182)

Examples

1. Work out the following:

a)

Weeks	Days	
~~3~~ 2	2	(7 + 2) -5
-1	5	9 – 5 = 4
1	4	2 – 1 = 1

b) Subtract: Weeks Days

5		
~~6~~	0	7 + 0 = 7
- 3	6	7 – 6 = 1
2	1	5 – 3 = 2

c) W0rk out : Weeks Days

14		
~~15~~	1	(7 + 1) - 4
- 10	4	8 – 4 = 4
4	4	14 – 10 = 4

ACTIVITY

1. Work out the following:

a) Weeks Days

7	4
- 2	6

b) Weeks Days

4	3
- 1	4

c) Weeks Days

5	3
- 2	5

d) Weeks Days

12	5
- 7	2

e) Weeks Days

13	1
- 8	5

f) Weeks Days

3	3
- 1	7

LESSON V

SUBTOPIC: MONTHS OF THE YEAR

Content: changing years to months (Anew Mk bk4 pg 151)

A year has 12 years.

It has 365/366 days and 52 weeks.

To change years to months, multiply the number of years by 12.

Examples

1. How months are there in 5 years?

1 year = 12 months

5years = 5 x 12 months

= 60 months

2. Change 3years to months

1 year = 12 months

3years = 3 x 12 months

= 36 months

3. Our father planted trees and harvested the after 12 years. How many months did the trees take to mature?

1 year = 12 months

12 years = 12 x 12 months

= 144 months

$$\begin{array}{r} 12 \\ \times 12 \\ \hline 24 \\ +12 \\ \hline 144 \end{array}$$

4. Convert $2\frac{1}{2}$ years to months

1 year = 12 months

2years = 2 x 12 months

= 24 months

$\frac{1}{2}$ years = $\frac{1}{\cancel{2}_{1}}$ x $\cancel{12}^{6}$ months

= 6 months

= (24 + 6) months

= 30 months

ACTIVITY

1. How many years are there in;
   a) 4 years b) $\frac{1}{4}$ a year c) 7 years d) $3\frac{1}{2}$ years
2. Nyangoma lived in kasokoso village for years. For how many months did she live there?
3. Namukasa is 15 years old. How old is she in months?
4. Amos spent $4\frac{1}{2}$ years to recover from sickness. How long did he take in months?
5. Express 30 years in months.

LESSON VI

Content: Converting months to years (Anew MK bk4 pg 152)

To change months to years, divide the given number of months by 12.

Examples

1. Our baby is 24 months old. How is it in years?

   12 months = 1 year

   24 months = (24÷ 12) months

   $$12\overline{)24}\ = 02$$

   0 x 12 = - 0

   24

   2 x 12 = - 24

   0

   It is 2 years old.

   1x12 = 12
   2x12 = 24
   3x12 = 36
   4x12 = 48

2. Anorld has been in a boarding school for 84 months. For how many years has she been there?

   12 months = 1 year

   84 months = (84 ÷ 12)

   $$12\overline{)84}\ = 04$$

   0x12 = - 0

   84

   7x12 = - 84

   0

   1x12 = 12
   2x12 = 24
   3x12 = 36
   4x12 = 48
   5x12 = 60
   6x12 = 72
   7x12 = 84

He has been there for 7 years

3. It took 120 months to construct a road from Nakawa to Jinja. How many years did the road take?

12 months = 1 year

120 months = (120÷ 12) months

$= \frac{\cancel{120}^{10}}{\cancel{12}_{1}}$

= 10 months

ACTIVITY

1. Change the following months to years;
   a) 36 months b) 48 months c) 144 months
   d) 60 months e) 108 months

2. Coffee plants take 72 months to mature. How many years do they take?

3. Miss Alimpa worked as a school Nurse for 72 months. For how many years has she worked?

LESSON VII

Content: Converting months to days (Anew MK bk4 pg 153)

Months with 30 days are: April, June, September, and November.

Months with31 days are: January, March, May, July, August, October, and December. February has either 28 or 29 days

Examples

1. How many days are there in the first two months of the year?

January	→	31 days	or	January	→ 31 days
February	→	+28 days		February	→ +29
Total	→	59 days			60 days

2. Babirye spent the last three months of the year in the hospital. How many days did she spend in the hospital?

October	→	31 days
November	→	30 days
December	→	+31 days
Total =		92 days

3. Musiimenta planted maize on 1st of September and harvested it on 31st of December. How many days did the maize take to mature?

September	→	30 days
October	→	31 days
November	→	30 days
December	→	+ 31 days
Total =		122 days

ACTIVITY

1. How many days are there in April, May and June?
2. How many days are there in the first three months of a leap year?
3. First term started on the 1st of February and ended on the 30th of April. For how many days did it last?
4. Moses went to America on 1st May and spent their 5 months. For how many days was he away from home?
5. How many days are in the first 6 months of the year?

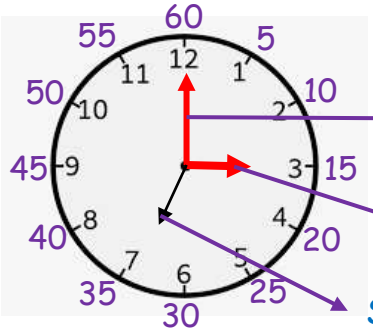
LESSON VIII

SUBTOPIC: TELLING TIME

Content: Telling time in hours (Anew Mk bk4 pg 154)

A clock has three hands.

- Hour hand – Tells / counts hours
- Minute hand – Tells / counts minutes
- Second hand – Tells / counts seconds



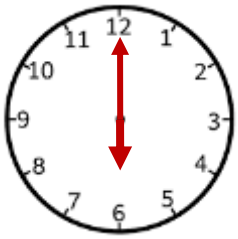
Note:

1 hour = 60 minutes

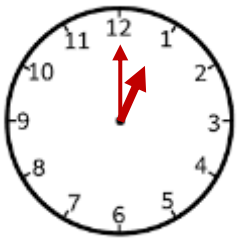
When the long hand (minute hand) points at 12 and the short hand (hour hand) points at any number, it's that very time.

Examples

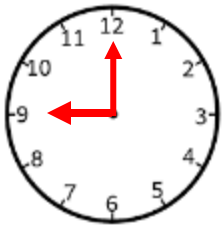
Tell the time

1. 

It is 6 O'clock

2. 

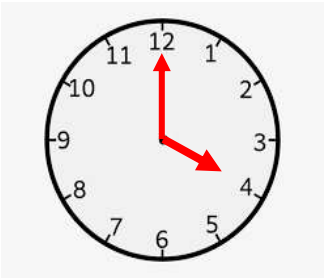
It is 1 O'clock.

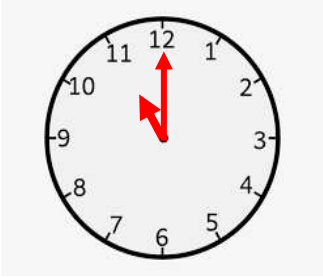
3. 

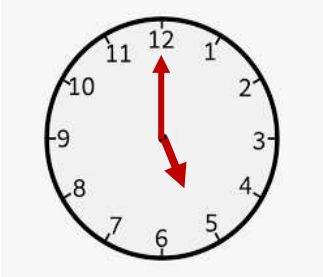
It is 9 O'clock.

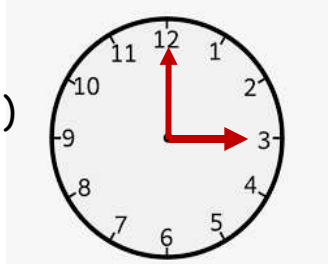
ACTIVITY

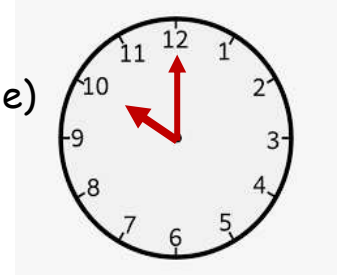
What is the time?

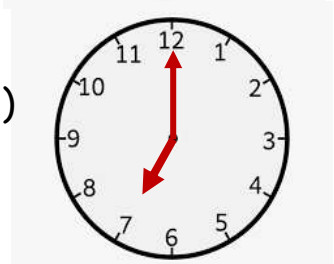
a)  It is_____

b)  It is__

c)  It is _____

d)  It is ____

e)  It is_____

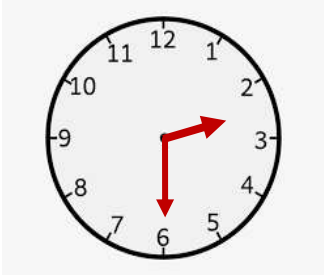
f)  It is_____

LESSON IX

Content: telling time using half past (Anew Mk bk4 pg 154-155)

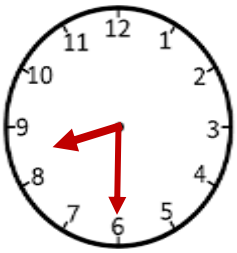
When the minute hand points to 6 and the hour hand points between any two numbers, it is a half past the hour

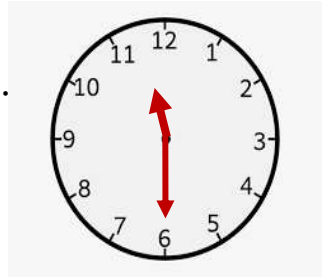
Examples

1. 

It is half past 2 O'clock. Or

It is 30 minutes past 2 o'clock.

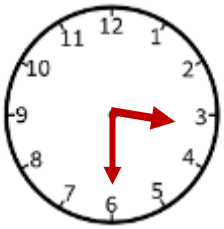
2  It is half past 8 o'clock.

3.  It is half past 11 o'clock.

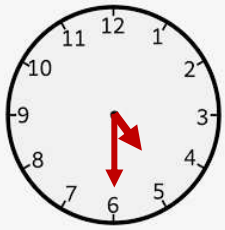
ACTIVITY

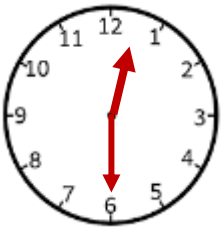
Tell the time;

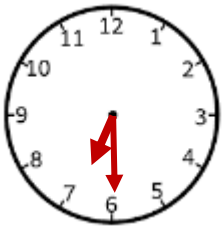
What is the time?

a)  It is -----

b)  It is-------

c)  It is ---------

d)  It is --------

e)  It is ----------

LESSON X

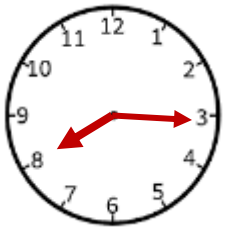
Content: telling time using a quarter to / a quarter past

(Anew Mk bk4 pg 154- 156)

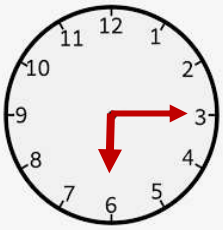
- When the minute points to 3, we say it is a quarter past the hour or 15 minutes past the hour.
- When the minute hand points to 9, we say it is a quarter to or 15 minutes to the hour.

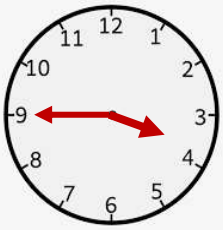
Examples

Tell the time;

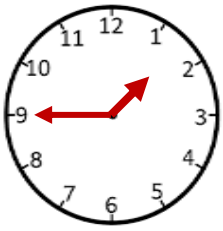
1.  It is a quarter past 8. or

   15 minutes past 8

2.  It is a quarter past 6

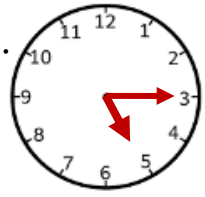
3.  It is a quarter to 4 o'clock or

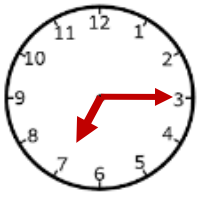
   It is 15 minutes to 4 o'clock

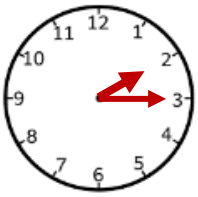
4  It is a quarter to 2 o'clock

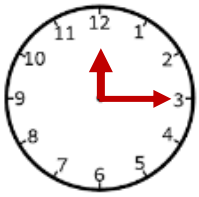
ACTIVITY

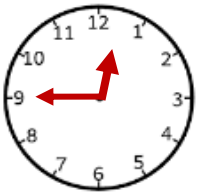
Study the clock faces and tell the time.

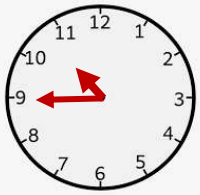
1.  It is---------

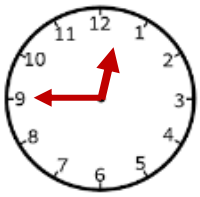
2.  It is ----------

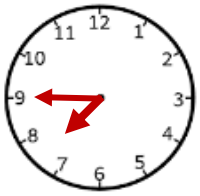
3.  It is-------

4.  It is--------

5.  It is---------

6.  It is ----------

7.  It is--------

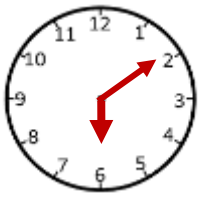
8.  It is ----------

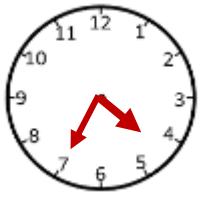
LESSON XI

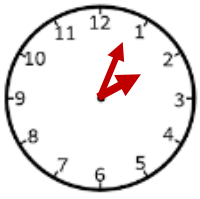
Content: Telling time in minutes (Anew Mk bk4 pg 155)

Examples

What time is it?

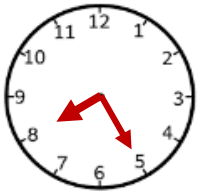
1.  The time is 10 minutes past 6.

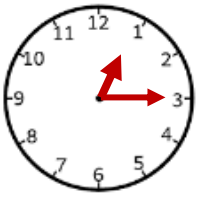
2.  The time is 25 minutes to 5.

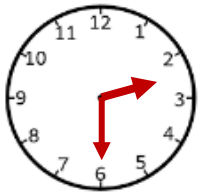
3.  The time is 5 minutes past 2.

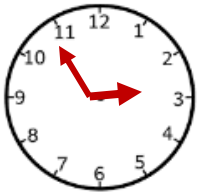
ACTIVITY

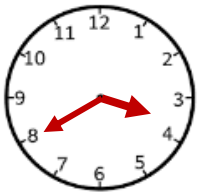
What is the time?

1.  The time is ----------

2.  The time is ----------

3.  The time is ----------

4.  The time is ----------

5.  The time is ----------

LESSON XII

SUBTOPI: Telling time using clocks

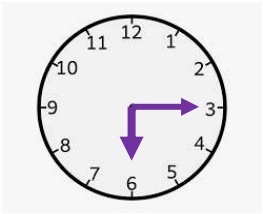
Content: Drawing and showing given time on clock face

(Anew Mk bk4 pg 156)

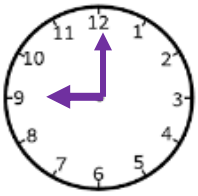
Examples

1. Draw a clock face and show the time:

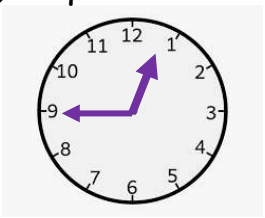
a) 15 minutes past 6.



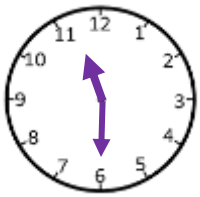
b) 9 o'clock



c) A quarter to 1 o'clock



d)Half past 11



ACTIVITY

Draw a clock face and show the following time

1. 30 minutes past 3.
2. 15 minutes to 7.
3. 5 minutes past 10
4. Half past 2.
5. A quarter past 8
6. 25 minutes past 2
7. 20 minutes to 5.

LESSON XIII

Subtopic: Conversion of time

Content: **Changing hours to minutes** (Anew Mk bk4 pg 159)

1. Change 4 hours to minutes

   1 hour = 60 minutes

   4hours = (4 x 60) minutes

   = 240 minutes

2. Change $3\frac{1}{4}$ hours to minutes.

1 hour = 60 minutes.

$3\frac{1}{4}$ hours = $(3+\frac{1}{4})$ hours.

3hours = (3 x 60) minutes

= 180 minutes

$\frac{1}{4}$ hour = (60 ÷ 4) minutes

= 15 minutes

$3\frac{1}{4}$ hours = (180 + 15) minutes

= 195 minutes

3. Juma took 8 hours to travel from Jinja to Kampala. How many minutes did he spend travelling?

1 hour = 60 minutes

8hours = (8 x 60) minutes

= 480 minutes

60

x 8

480

ACTIVITY

1. Change the following hours to minutes.

   a) 5 hours b) $\frac{1}{2}$ an hour c) $6\frac{1}{4}$ hours d) 7 hours

   e)12hours

2. A wedding ceremony lasted $5\frac{1}{2}$ hours. Express the time it lasted in minutes.
3. Angella took $7\frac{1}{2}$ hours to travel from Kampala to Bushenyi. How many minutes did she spend travelling?
4. How many minutes are $2\frac{1}{2}$ hours?

LESSON XIV

Content: Changing minutes to hours (Anew Mk bk4 pg 160)

Examples

To change minutes to hours, divide the given minutes by 60

1. Change 180 minutes to hours.

   60 minutes = 1 hour.

180 minutes = (180÷ 60) minutes.

```
        003
= 60 | 180
0x60 =- 0
       18
0x60 = - 0
      180
3x60 =-180
         0
```

180 minutes = 3 hours

2. Convert 130 minutes to hours.

60 minutes = 1 hour

130 minutes = (130÷60) hours.

```
        002
= 60 | 130
0 x 60 = -0
         13
0 x 60= -0
        130
2x60 = - 120
          10
```

= 2hrs 10 minutes

130 minutes = 2hrs 10 minutes

ACTIVITY

1. Express the following minutes to hours
   a) 90 minutes b) 120 minutes c) 420 minutes d) 300 minutes
2. The examination lasted 150 minutes. For how many hours did it last?
3. James worked in his garden for 360 minutes. For how many hours did he work in his garden?
4. Convert 720 minutes to hours.
5. Kabajungu took 630 minutes to travel from Fort Portal to Kampala. For how many hours did the journey last?

LESSON XV

Subtopic: Addition of time (Anew Mk bk4 pg165-166)

Examples

1. Work out the following:

a) Hours Minutes

2	20
+1	24
4	44

b) Hrs Mins

3	40
+ 4	30
8	10

40 + 30 = 70

70 ÷60 = 1 rem 10

1 + 3 + 4 = 8

2. A taxi driver took 2hours 40 minutes to drive from Kampala to Masaka and 1 hour 45 minutes from Masaka to Kabula. How much time did he take altogether?

	Hrs	Mins
Kampala to Masaka →	2	40
Masaka to Kabula →	+ 1	45
Total time →	4	25

40+45 = 85

85÷ 60 = 1 rem 25

1 + 2 + 1 = 4

ACTIVITY

1. Workout the following;

a) Hrs Mins

1	30
+ 3	35

b) Hrs mins

4	15
+ 5	40

c) Hrs Mins

2	25
+5	30

d) Hrs	Mins
8	43
+ 9	47

b) Hrs	Mins
4	22
+ 2	17

c) Hrs	Mins
7	50
+ 3	15

2. It took Annah 1 hour 45 minutes while reading the book and 2 hours 10 minutes while listening to music. Find the total time she took for the two activities
3. A cyclist rode for 5 hours 30 minutes from Ibanda to Isingiro and 2 hours 35 minutes from Isingiro to Mbarara. How long did he ride?
4. It took 5 hours 38 minutes to load a vehicle and 4 hours 24 minutes to pack the goods in the store. Find the total time taken.

LESSON XVI

SUBTOPIC: Subtraction of time (Anew Mk bk4 pg 164- 170)

Examples

1. Subtract;

Hrs	Mins
7	20
- 4	10
3	10

2.

Hrs	Mins
~~3~~ 2	35
-1	45
1	50

(60+35) - 45
95 – 45 = 50
2- 1 = 1

2. Joshua took 3 hours 20 minutes to move from home to school. If he walked for 1 hour 35 minutes and used a bodaboda for the rest of the journey. How much time did he spend on the bodaboda?

Hrs	Mins
~~3~~ 2	25
-1	35
1	50

60 + 25 = 85
85 – 35 = 50
2- 1 = 1

ACTIVITY

1. Workout the following:

a)

Hrs	Mins
3	10
-1	20

b)

Hrs	Mins
5	35
- 2	40

C)

Hrs	Mins
7	55
- 3	40

d)

Hrs	Mins
12	20
-7	35

2. Benson spent 5 hours and 26 minutes at school. He played for 1hour 30 minutes. For how long did she stay in class?
3. Allen spent 8 hours 30 minutes at the church. If she spent 5 hours 45 minutes in the church, how much time did he spend outside the church?
4. A farmer took 10 hours 05 minutes in the garden. She spent 8 hours 30 minutes harvesting. How long did she take digging?

LESSON XVII

SUBTOPIC: Duration/time Taken (Anew Mk bk4 pg 161)

CONTENT; Finding duration

Duration = starting time – ending time.

Examples

1. A bus left the park at 7:00 am and arrived in Gulu at 11:15 am. How long did the journey take?

   Duration = Ending time – starting time

   Duration = E.T – S.T

Bus arrived at 11: 15 am

Bus left at - 7: 00 am

4 : 15

It took 4 hours and 15 minutes.

2. A party stared at 4:30 pm and ended at 9: 45 pm. For how long did the party last?

   Time taken = ending time – starting time.

Hrs	Mins
9	45 pm
-4	30 pm
5	15

It took 5 hours 15 minutes

ACTIVITY

1. A lesson started at 8: 00 am and ended at 9: 20 am
   How long did it take?
2. A car left kamwenge at 1:30 pm and arrived in Kampala at 10:43 pm. How long did the car take?
3. Annex left home at 7:12 am and reached church at 9:40 am. How much did time did she spend on the way?
4. A school assembly started at 11:15 am and ended at 12: 40 pm. How long did the assembly take?
5. We left Mbuya parents' school at 5:15 am and reached home at 11: 50 am. For how long did the journey last?

TOPIC: LENGTH, MASS AND CAPACITY

SUBTOPIC: LENGTH

Content: Changing metre (m) to centimetre (cm).

Study the table below

Km	Hm	Dm	M	dm	cm	mm
			1	0	0	

1 metre = 100 centimetres.

1m = 100cm

Examples

Change the following metres to centimetres

a) 3m

1m = 100 cm

3m = (3x100) cm

= 300cm

b) 3m + 2m +4m

3m +2m + 4m = 9m

1m = 100cm

9m = (9 x 100) cm

= 900cm

b) Convert 17 m to cm

1m = 100cm

17m = (17 x 100) cm

= 1700 cm

ACTIVITY (A new MKbk4 pg186)

1. Change the following to centimeters

a) 4metres b) 18m c) (2+5+4) m d) 23m e) (3x5) m

f) 27m g) (4+8+2) m

2. Complete the table below

metres	30	9	11
centimetres	_____	_____	_____

LESSON II

Content: Changing centimetres to metres (Anew Mk bk4 pg 186)

Examples

1. Change 200 centimetres to metres

Since 1m = 100cm

So 100 cm = 1m

200 cm = (200÷100) m

$= \frac{200}{100}$

$= 2$ m

2. Change 8000 cm to metres

100cm = 1m

8000 cm = (8000÷100)

$= \frac{8000}{100}$

= 80 m

3. Express 9800 cm as metres.

100 cm = 1m

9800 cm = (9800÷ 100) m

$= \frac{9800}{100}$

= 98 m

ACTIVITY

Change the following to metres

a) 100 cm b) 400 cm c) 2300 cm c) 700 cm d) 5300cm

e) 1100 cm f) 7400 cm g) 1000cm

LESSON III

Content: Addition in metres and centimetres.

(Anew MK bk4 pg 187-188)

When the sum reaches or exceeds 100 when adding in metres and centimetres, divide the sum by 100, write the remainder and regroup the quotient.

Examples

1. Add; m cm

	m	cm
	2	45
+	6	36
	8	81

2. Add: m cm

	m	cm
	8	25
+	6	85
	15	10

25 + 85 = 110

110 ÷ 100 = 1 rem 10

1 + 8 + 6 = 15

3. Peter has 13 m 83 cm of wire. His friend has 18 m 36 cm of wire. What is the total length of both wires?

	M	cm
	13	83
+	18	36
	32	19

83 + 36 = 119

119 ÷ 100 = 1 rem 19

1 + 13 + 18 = 32

ACTIVITY

1. Add in metres and centimetres

a) m cm

	3	42
+	4	17

b) m cm

	16	35
+	6	12

c) m cm

	5	10
+	1	30

d) m cm

	19	16
+	3	84

e) m cm

	8	37
+	7	70

2. Sarah had 8m 55cm of cloth. She later bought 10 m 85 cm of cloth. Find the total length of cloth she has now.
3. Atim had 4 m 75 cm of a tape, Otim had 3m 65 cm long. What is the total length of the tapes?
4. My ribbon is 49 m 68 cm long. Joshua's ribbon is 58 m 34 cm long. What is the total length of both ribbons?

LESSON IV

Content: subtraction of metres and centimetres

(Anew MK bk4 pg 188 – 189)

Examples

1. Subtract:

	m	cm
	6	80
-	2	60
	4	20

2.

	m	cm
	~~9~~ 8	24
-	5	30
	3	94

100 + 24 = 124
124 – 30 = 94
8 – 5 = 3

2. Amos had a ribbon measuring 15 m 36 cm. He cut off 9m 21cm. what length remained?

	m	cm
Amos had →	15	36
He cut off →	- 9	21
	6	15

ACTIVITY

1. Work out the following;

a)

m	cm
7	30
- 2	10

b)

m	cm
9	60
-4	20

c)

m	cm
10	15
- 6	30

d)

m	cm
16	40
7	50

e)

m	cm
15	50
- 9	40

f)

m	cm
27	20
- 14	32

2. Francis had a string measuring 25 m 15 cm. He cut off 18 m 35 cm. What length the string did he remain with?
3. Subtract 3 m 75 cm from 11 m 20 cm.
4. An electric wire is 25 m 25 cm long. 1 m 30 cm is cut off. What length of wire is left?

LESSON V

Content: changing kilometres into metres. (Anew MK bk4 pg195)

Study the table below

Km	Hm	Dm	M	dm	cm	mm
1	0	0	0			

1 km = 1000 m

When changing from km to metres, we multiply the km given by 1000.

Examples

Change the following to kilometres to metres

a) 5km.

1 km = 1000 m

5 km = (5 x 1000) m

5 km = 5,000 m

b) 12 km

1 km = 1,000 m

12 km = (12 x 1,000) m

12 km = 12,000 m

3. Annah covered 17 km while running. What distance did she cover in metres?

Since 1 km = 1,000 m

17 km = (17 x 1,000) m

= 17,000 m

She covered 17,000 metres

ACTIVITY

1. Change the following to metres
   a) 4 km b) 16 km c) 1km d) 30 km e) 22 km
2. A motorist covered a distance of 15 km. What is this distance in metres?
3. Harriet walks 9 km every day. How many metres does she walk every day?
4. Nakawa is 10 km from kireka. What is this distance in metres?

LESSON VI

Content: Changing metres to kilometres

(Anew MK bk4 pg192-194)

Since 1 km = 1,000 m

So 1,000m = 1 km

Examples

Change the following metres to kilometres

a) 3000 m

1,000 m = 1 km

3000 m = (3,000 ÷ 1,000) km

= 3,000

1,000

= 3 km.

b) 14000 m

1, 000 m = 1 km

14,000 m = 14,000

1000

= 14 km

14,000 m = 14 km

2. A train covered a distance of 10,000 m from Kireka to Kampala. What distance did it cover in kilometres?

1,000 m = 1 km

10,000 m = (10,000 ÷ 1000) km

= 10,000

1000

= 10 km

It covered 10 km

ACTIVITY

1. Change the following to kilometres
   a) 1000 m b) 8,000 m c) 16,000 m d) 2,000 m
2. Alex cycles 165,000 m from home to school. How many kilometres are these?
3. Amooti travelled a distance of 32,000 metres. What distance did he travel in kilometres?
4. Atim ran a distance of 12,000 metres. Express this distance in kilometres.
5. Adoki has a string of length 11,000 metres. How many kilometres is his string?

LESSON VII

Content: Addition in kilometres and metres

(Anew MK bk4 pg197)

Examples

1. Add 4 km 220 m to 22 km 543 m

Km	m
22	543
+ 4	220
26	743

2. Work out:

km	m
15	880
+ 6	750
22	630

880 + 750 = 1630

1630÷1000= 1rem630

1 + 15 + 6 = 22

2. A road construction company made 24 km 855 m of the road on Monday and 37 km 278 on Tuesday. What distance of the road did they make?

Km	m
24	855
+ 37	278
62	133

11

855

+ 278

1133

1133÷1000= 1rem133

1 + 24 + 37 = 62

ACTIVITY

1. Work out the following:

a)

Km	m
13	530
+ 8	247

b)

km	m
8	460
+ 1	780

c)

km	m
21	456
+ 23	604

2. A motorist covered 12 km 650 m from his home to town and 15 km 836 m from town to the river. What distance did he cover?
3. It is 76 km 300 m from Bugolobi to kireka and 76 km 200 m from kireka to Nambole. How long is it from Bugolobi to Nambole?
4. Godius walks 4 km 250 m from Mbuya to Luzira and 5km 143 m from Luzira to Gayaza. Calculate the distance from Mbuya to Gayaza.

LESSON VIII

Content: Subtraction in km and metres (Anew MK bk4 pg198-199)

Examples

1. Subtract:

	km	m
	46	370
-	12	260
	34	110

b)

	km	m
	~~28~~ 7	455
-	13	690
	14	765

1000 + 455 = 1455

13 15
~~14~~ ~~5~~ 5
- 690
765

2. A man travelled a total distance of 28km 400m by bus and on foot. If he travelled 7 km 250 m on foot. What distance did he travel by bus?

	Km	m
		310
	28	~~4~~0 0
-	7	250
	21	150

ACTIVITY

1. Work out the following;

a)

Km	m
47	280
- 23	170

b)

km	m
12	850
- 9	450

c)

km	m
76	230
- 63	560

d)

Km	m
90	55
-35	85

2. Subtract 12 km 680 m from 27 km 240 m.
3. From length of 315 km 425 m subtract 285 km 650 m.
4. Acar was to cover a distance of 26km 500m but broke down after covering only 13km 750 m. What distance had remained to be covered?

LESSON IX

Content: Finding perimeter of a square (MK MTC bk4 pg176)

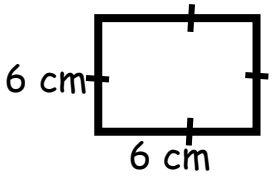
- Perimeter is the distance round a shape.
- To find distance, add all the sides of the given shape.
- A square has all the 4 sides equal.
- Therefore its perimeter = side + side +side +side

Perimeter of a square = **s + s + s + s**

Or perimeter = 4 x s

Examples

1. Find the perimeter of the square below.



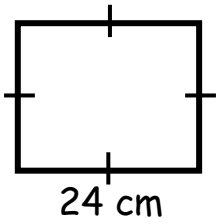
Perimeter = S + S + S + S

= 6 cm + 6 cm + 6 cm + 6 cm

= 12 cm + 12 cm

= 24 cm

2. The length a square garden is 24 cm. Calculate its perimeter.



Perimeter = S + S + S + S

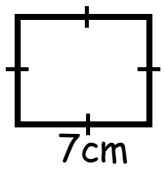
= 24 cm + 24 cm + 24 cm + 24 cm

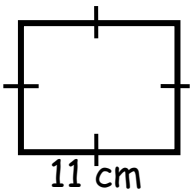
= 48 cm + 48 cm

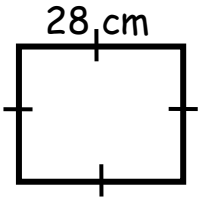
= 96 cm

ACTIVITY

1. Find the perimeter of the shapes below;

a) 

b) 

c) 

2. Find the perimeter of a square of side 16 cm
3. The length of a square fish pound is 43 cm. Calculate its perimeter.
4. The length of a square playground is 56m. Find it perimeter.
5. The length of Peter's compound is 8 m. Annah walked round it 3 times. Calculate the distance she covered.

LESSON X

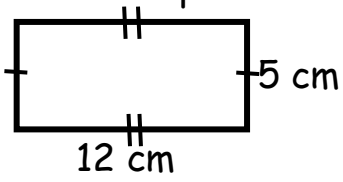
Content: Finding perimeter of rectangle (MK mtc bk4pg177)

Examples

Perimeter of a rectangle = L + W + L + W. Or

Perimeter of a rectangle = 2(L + W)

1. Find the perimeter of a rectangle below.



Perimeter = L + W + L + W

P = 12 cm + 5 cm +12 cm + 5 cm

P = 17 cm + 17 cm

P = 34 cm

OR

Perimeter = 2(L + W)

P = 2(12 cm + 5 cm)

P = 2 x 17 cm

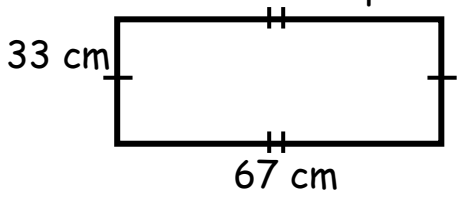
P = 34 cm

17 cm

x2

34 cm

2. The length of a rectangular coffee garden is 67 m and its width is 33 m. Calculate its perimeter



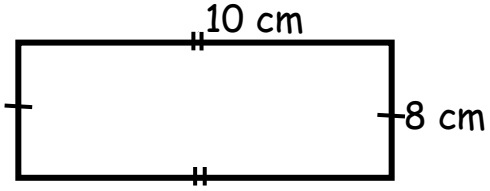
P = L + W + L +W

P = 67cm + 33cm + 67cm + 33cm

P = 100 cm + 100 cm

P = 200 cm

3. The length of our school play ground is 10 cm and width 8cm. Annet ran round it 4 times, what distance did she cover?



Perimeter = L + W + L + W

P = 10 cm + 8 cm + 10 cm + 10 cm

P = 18 cm + 18 cm

P = 36 cm

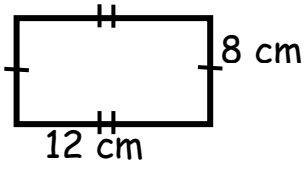
Distance covered = 36 cm x 4

= 144 cm

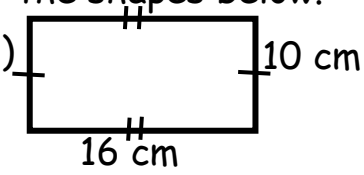
ACTIVITY

1. Calculate the perimeter of the shapes below.

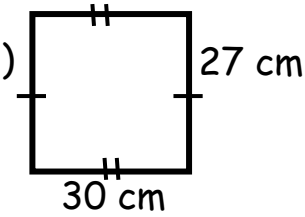
a)



b)



c)



2. The width of our chalkboard is 150 cm and its length is 295 cm. Calculate its Perimeter.
3. Our classroom block measures 34 m by 9 m. Atim walked round it 2times. What distance did he cover?
4. Juma's grazing field is 485 m long and 254 m wide. Calculate its perimeter.

LESSON XI

Content: Finding perimeter of triangles (MK mtc bk4 pg178)

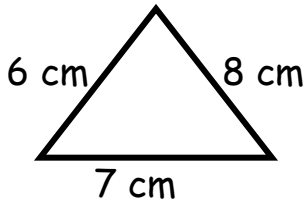
A triangle has three sides. Perimeter of a triangle equals sum of the 3 sides.

Perimeter of a triangle = $side_1 + side_2 + side_3$

$P = S_1 + S_2 + S_3$

Examples

1. Find the perimeter of the triangle below.



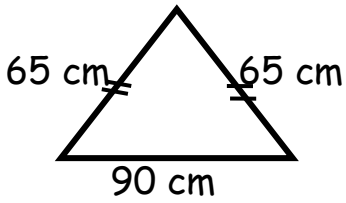
$P = S_1 + S_2 + S_3$

$P = 7cm + 8\ cm + 6\ cm$

$P = 15\ cm + 6\ cm$

$P = 21\ cm$

2. A triangular table top measures 65 cm, 90 cm and 65 cm. Calculate its perimeter.



$P = S_1 + S_2 + S_3$

$P = 90\ cm + 65\ cm + 65\ cm$

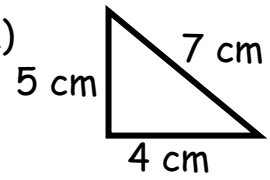
$P = 90\ cm + 130\ cm$

$P = 220\ cm$

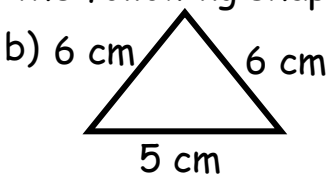
ACTIVITY

1. Find the perimeter of the following shapes;

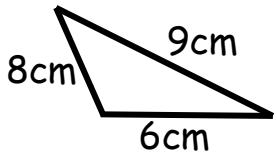
a)



b)



c)



2. Find the perimeter of a triangular plot of land whose sides are 28 cm, 35 cm and 43 cm.
3. A triangular flower garden measures 720 m, 680 m and 720 m
   a) Calculate its perimeter.
   b) Convert it perimeter to centimetres.

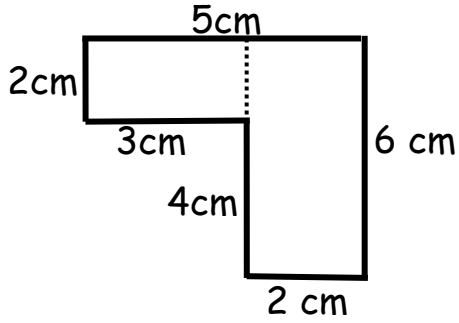
LESSON XII

Content: Finding perimeter of combined shapes

(Mk mtc bk5 pg156)

Examples

1. Find the perimeter of the shape below



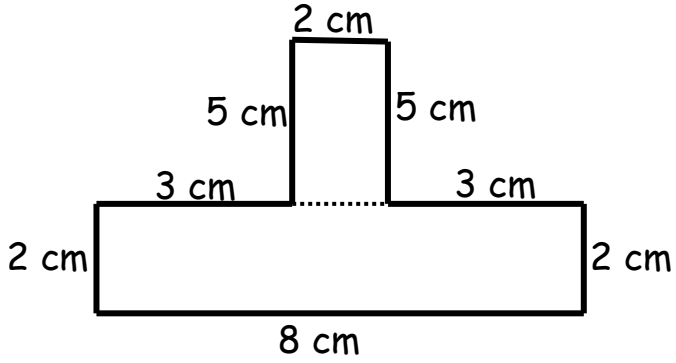
P = S + S + S + S + S + S

P = 5cm + 6cm + 2cm +4cm +3cm +2cm

P = 11 cm + 11 cm

P = 22 cm

2. Work out the perimeter of the shape below



P = 8 cm + 2 cm + 3 cm + 5 cm + 2 cm + 5 cm + 3 cm + 2 cm

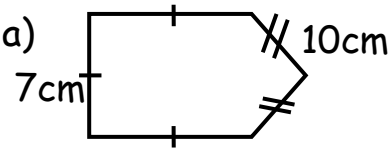
P = 18 cm + 12 cm

P = 30 cm

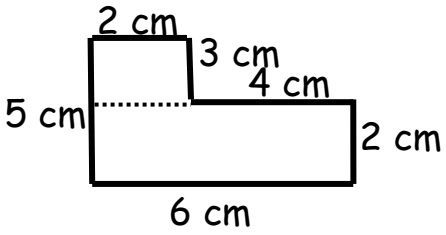
ACTIVITY

Find the perimeter of the given shapes below

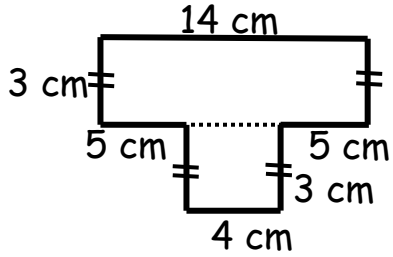
a)



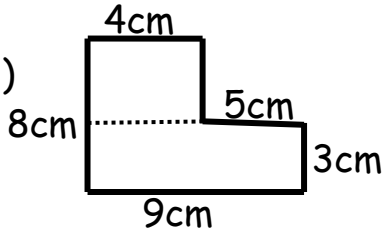
b)



c)



d)



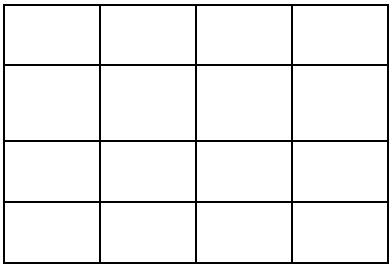
LESSON XIII

Content: finding area of squares (Mk mtc bk4 pg 179)

Area is the amount of space covered by a flat space.

Area is measured in square units. E.g. cm^2, m^2, dm^2.

Examples



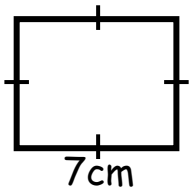
Looking at this shape, each side is 4 units

Its area = side x side

Area = 4 units x 4 units

= 16 square units

2. Find the area of the square below



Area = side x side.

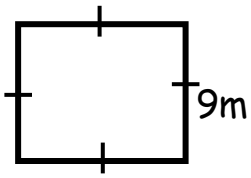
A = S x S

A = 7cm x 7cm

A = $49cm^2$

Or A = 49 square centimetres

3. One side of a square room is 9m. Calculate the area of the room.



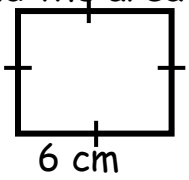
Area = S x S

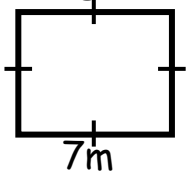
A = 9 cm x 9 cm

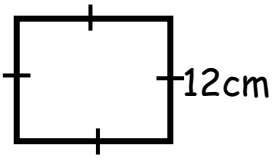
A = $81\ m^2$

ACTIVITY

1. Find the area of the squares given below

i) 

ii) 

iii) 

2. The length of a square playground is 13m. Calculate its area.
3. Find the area of a square floor whose side measures 32m.
4. A square table measures 14 cm. Find its area.

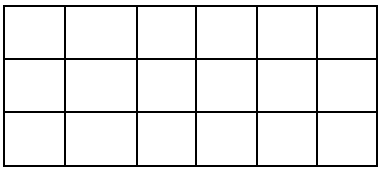
LESSON XIV

Content: Finding area of rectangles (Mk mtc bk4 pg180)

Examples

Area of a rectangle = length x width

A = L x W



Length (L) = 6 units

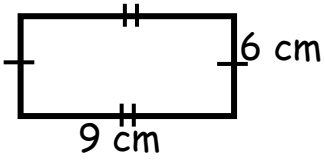
Width (W) = 3units

Area = L x W

A = 6 units x 3 units

A = 18 square units

2. Find the area of the rectangle below

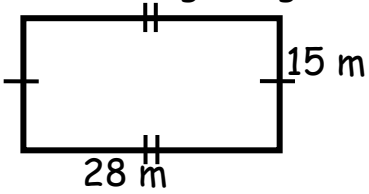


Area = L x W

A = 9 cm x 6 cm

A = 54 cm^2

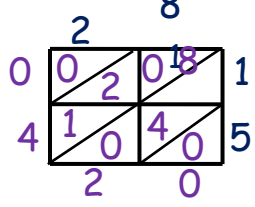
3. A rectangular garden measures 28 m by 15 m. Calculate its area.



Area = L x W

A = 28 m x 15 m

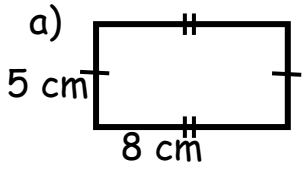
A = 420 m^2



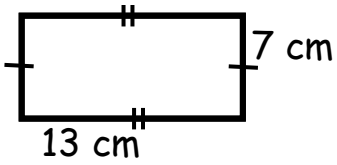
ACTIVITY

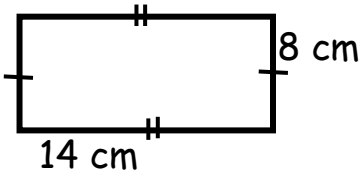
1. Find the area of the rectangles above

a)



b)

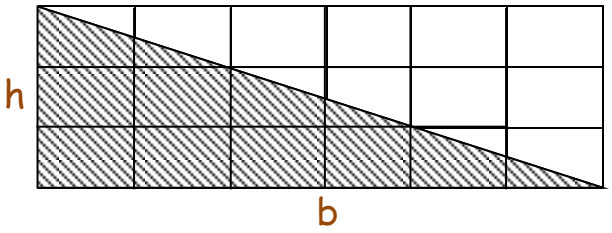




2. A banana plantation is 20 m long and 15 m wide. Find its area.
3. A playground measures 30 cm by 10 cm. Calculate its area.
4. Find the area of a rectangular blanket whose length is 26 dm and width 22 dm.

LESSON XV

Content: Area of a triangle. (Anew MK bk4 pg214-217)



The shaded part of a rectangle is a triangle.

b is the length on the base of the triangle.

h is the height of the triangle.

Base of a triangle (b) = 6 units.

Height (h) of a triangle = 3 units

The area of a triangle is half the area of the rectangle.

A triangle is $\frac{1}{2}$ of a rectangle.

Area of a triangle = $\frac{1}{2}$ x base x height.

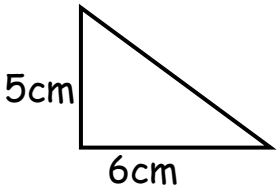
Area = $\frac{1}{2}$ x $\cancel{6}^{3}$ units x 3 units
$_{1}$

Area = 3 units x 3 units

= 9 square units

Examples

1. Find the area if the triangle below



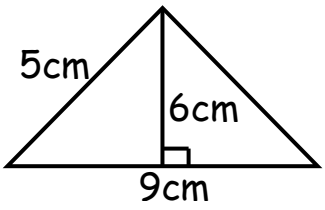
$\text{Area} = \frac{1}{2} \times b \times h$

$\text{Area} = \frac{1}{2} \times 3\text{cm} \times 5\text{cm}$

$\text{Area} = 3\text{ cm} \times 5\text{ cm}$

$\text{Area} = 15\text{cm}^2$

2. Calculate the area of the triangle below



$\text{Area} = \frac{1}{2} \times b \times h$

$A = \frac{1}{2} \times 9\text{cm} \times 3\text{cm}$

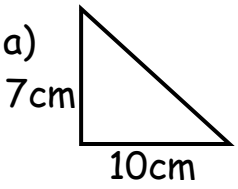
$A = 9\text{cm} \times 3\text{cm}$

$A = 27\text{ cm}^2$

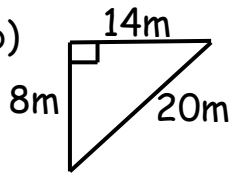
ACTIVITY

1. Find the area of these triangles.

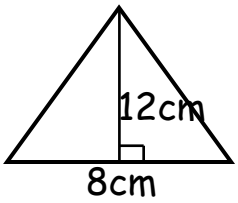
a)



b)



c)



2. Find the area of a triangle whose base is 7cm and height 6cm.
3. The base of a triangle is 10 cm and height is 9 cm. Find the area of the triangle.
4. Find the area of a triangular table top of base 15cm and height 10 cm.

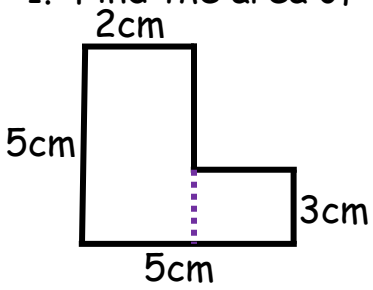
LESSON XVI

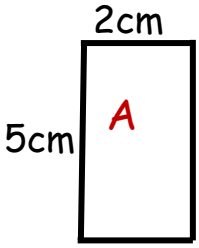
Content: finding area of combined shapes.

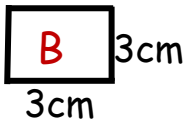
(Anew Mk bk4 pg 211-212)

Examples

1. Find the area of the shape below.







Area of rectangle A = L x W

= 5cm x 2cm

= 10cm^2

Area rectangle B = L x W

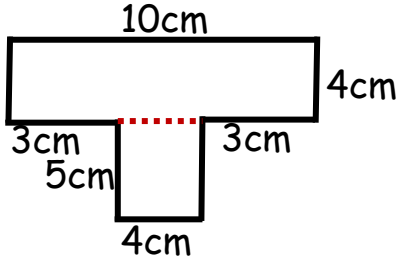
= 3cm x 3cm

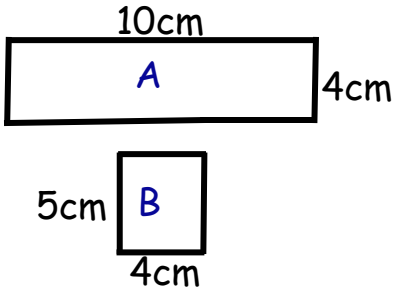
= 9cm^2

Area of the shape = 10cm^2 +9cm^2

A = 19cm^2

Calculate the area of the shape below.





Area of rectangle (A) = L x W

A = 10cm x4cm

A = 40cm^2

Area of rectangle (B) = L x W

A = 5cm x 4cm

A = 20cm^2

Total area of the shape

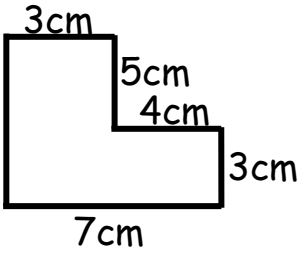
A = 40cm^2 + 20cm^2

A = 60cm^2

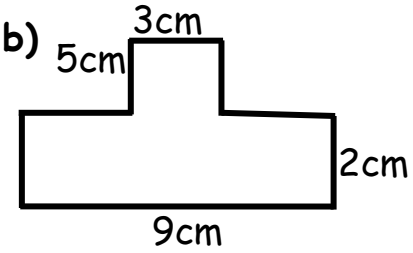
ACTIVITY

Find the area of the following shapes.

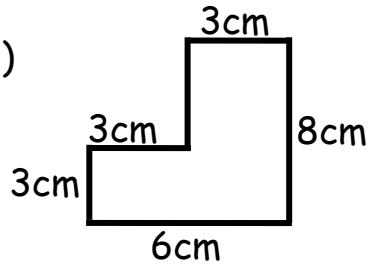
a)



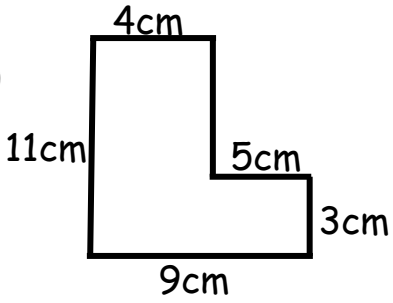
b)



c)



d)



LESSON XVII

SUBTOPIC: CAPACITY

Content: Comparing litres, half litres and quarter litres

(Anew MK bk4 pg223 – 224)

Capacity is how much a container can hold.

A container can hold substances such as water, paraffin, oil, milk, sand, air or other things

The basic units of capacity is litres and milliliters

1litre = 2 half litres.

1litre = 4 quarter litres

Examples

1. How many half litres are in 2 litres?

1 litre = 2 half litres

2 litres = (2 x 2) half litres

= 4 half litres

2. How many $\frac{1}{2}$ litre jugs will fill a 6 litre containers?

1litre = 2 half jugs

6 litres = (2 x 6) half jugs

= 12 half jugs

3. How many $\frac{1}{4}$ litre bottles of milk can fill a 20 litre jerrycan?

1 litre = 4 quarter litre bottles.

20 litres = (4 x 20) quarter litre bottles.

= 80 quarter litre bottles.

4. How many $\frac{1}{4}$ litre bottles can fill a 10 litre jerrycan?

1litre = 4 half litres

10 litres = (4 x 10) half litres

= 40 half litre bottles

ACTIVITY

1. How many half litres are in 4 litres?
2. How many $\frac{1}{2}$ litre cups will fill a15litre containers?
3. How many $\frac{1}{4}$ litres are in 40 litres?
4. How many $\frac{1}{4}$ litre cups will fill a 12 litre can?
5. How many half litres are in fourteen litres?
6. How many quarter litre cups can be obtained from a 35 litre jerrycan?

LESSON XVIII

Content: Changing litres to millilitres (Anew Rs mtc p.3 pg 127)

Note:

1 litre = 1000ml

Examples

1. Change 4litres to millilitres.

   1l = 1000ml

   4l = (4 x 1000) ml

   4l = 4000ml

2. Convert 45litres to millilitres.

   1l = 1000ml

   45l = (45 x 1000) ml

   45l = 45000ml

John was given 22litres of milk. How much milk was he given in millilitres?

1l = 1000ml

22l = (22 x 1000) ml

22l = 22000ml

ACTIVITY

1. Convert the following to millilitres.
   a) 3 litres. b) 9 litres c) 14 litres d) 24 litres
   e) 54 litres f) 70 litres g) 110 litres
2. My father's car uses 15litres of fuel every day. How much fuel in millilitres does it use?
3. Mary bought 18litres of paraffin, how much paraffin did she buy in millilitres?

LESSON XIX

Content: Changing millilitres to litres (Anew MK bk3pg161)

Note: 1000 ml = 1l.

Examples

1. Change 7000ml to litres.

   1000ml = 1l

   7000ml = (7000 / 1000) litres

   7000ml= 7litres

2. Convert 12000 ml to litres

   1000ml = 1 l

   12000ml = 12000ml / 1000 l

   12000ml = 12 litres

3. Tom bought 98000millilitres of milk, how much milk did he buy in litres?

   1000 ml = 1l

   98000ml = 98000 / 1000

   98000ml = 98litres

ACTIVITY

1. Change the following to litres

a) 2000 ml b) 13000 ml c) 37000 ml d) 31000ml

e) 10,000ml f) 4000ml h) 15000ml

2. John was given 39000millilitres of fuel for his car, how many litres of fuel was he given?
3. Our school tank holds 2000, 000millilitres of water, how much water does it hold in litres?

LESSON XX

Content: Addition of litres and millilitres (Anew MK bk4pg227)

Examples

1. Work out the following

a)

L	ml
7	250
+ 2	400
9	650

b)

L	ml
	1
6	150
+ 5	270
11	420

2. A petrol tank contains 500 litres 900 ml and a diesel tank contains 250 litre 700ml. How much fuel is there now?

L	ml
1	
500	900
+ 250	700
751	600

ACTIVITY

Add:

a)

L	ml
3	340
+ 8	220

b)

L	ml
12	570
+ 8	430

c)

L	ml
14	360
+ 7	415

2. Add 16 litres 720 ml to 8 litres 250ml.
3. I have 150 litres 200 ml of water. Asiimwe gives me 120 litres 800ml of water. How much water do I have now?
4. Jane's bottle holds **15litres 130ml**of water and her brother's bottle holds **3litres 290ml** of water.What is the capacity of the two bottles?
5. Isaac's jerrycan holds **77litres 45ml** and Peter's jerrycan holds **25litres 40ml**. What is the capacity of the two jerrycans?

LESSON XXI

Content: subtraction of litres and millilitres.

(RS thematic p.3 pg 127)

Examples

Workout the following:

a)

L	ML
9	650
-5	200
4	450

b)

L	ML
	6 10
35	~~7~~00
- 14	350
21	350

C)

L	ML
4 13	6 12
6~~5~~3	7~~2~~0
- 324	470
329	250

4. James had **25litres 900ml** of milk. He sold **20litres 250ml**. What amount of milk did he remain with?

L	ML
	8 10
25	900
- 20	250
05	650

ACTIVITY

1. Work out the following;

a)

L	ML
9	700
- 5	600

b)

L	ML
12	650
- 9	310

c)

L	ML
11	760
- 9	450

2. Subtract 8litres 270ml from 15litres 500ml.
3. Peter had **43litres 840ml** of milk. He sold **19litres 350ml**. What amount of milk did he remain with?
4. Take away 5litres 156ml from 13 litres 267ml.

LESSON XXII

Content: Finding volume of a cuboid (Mk bk6pg356)

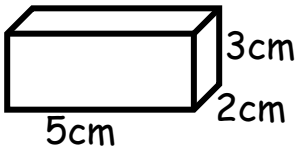
A cuboid has 6 faces. Each face is a rectangle.

Volume of a cuboid equals length x width x height.

Therefore Volume = L x W x H

Examples

1. Find the volume of the cuboid below.



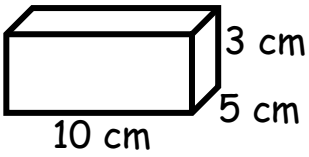
Volume = L x W x H

= 5cm x 2 cm x 3cm

= (10 x 3) cm^3

Volume = 30 cm^3

2. Find the volume of a cuboid whose length is 10cm, width 5cm and height 3cm.



Volume = L x W x H

= 10cm x 5cm x 3cm

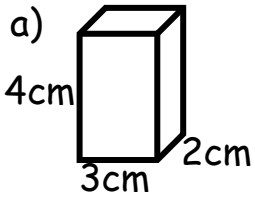
= (50 x 3) cm^3

= 150 cm^3

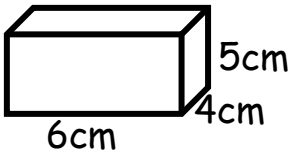
ACTIVITY

1. Find the volume of the shapes below;

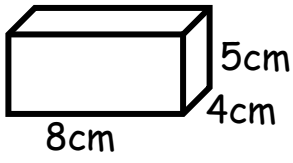
a)



b)



c)



2. The length of a cuboid is 7cm, width 5cm and height 3cm. calculate its volume.
3. Find the volume of a cuboid of length 9cm, width 4cm and height 5 cm.

LESSON XXII

Content: Finding volume of a cube

A cube has 6 faces and each face is a square.

It has all sides equal.

Volume of a cube equals side x side x side

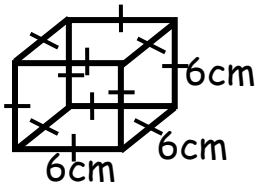
Volume = side x side x side

Volume = S x S x S

Examples

1. Find the volume of the cubes below;

a)



Volume = S x S x S

= 6cm x 6cm x 6cm

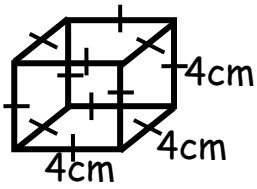
= (36 x 6) cm^3

= 3 6

x 6

216cm^3

b)



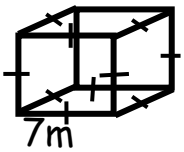
Volume = S x S x S

= 4cm x 4cm x4cm

= (16 x4) cm3

= 64cm^3

2. Find the volume of a cube which measures 7m each side



Volume = S x S x S

Volume = 7m x 7m x7m

= (49 x 7) m^3

= 343 m^3

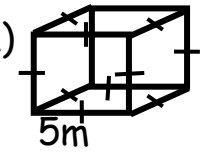
9 x 7 = 63

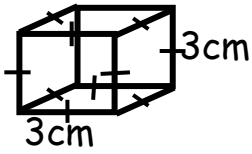
4 x 7 + 6

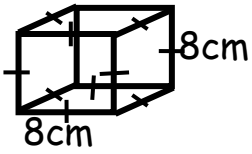
28 + 6 = 34

ACTIVITY

1. Find the volume of the following shapes;

a) 

b) 

c) 

2. Calculate the volume of a cube which measures 10cm each side.
3. Find the volume of a cube whose each side measures 2m.
4. A cube measures 9 cm each side. Calculate its volume.

LESSON XIII

Subtopic: **Mass**

Content: Comparing kilograms, half kilogram and quarter kilogram. (Anew Mk bk4 pg 228)

The quantity of matter contained in an object. This is how light or heavy an object is.

The gram is the basic unit for mass.

1kg = 2 half kilograms

1kg = 4 quarter kilograms

Examples

1. How many half kilograms are in 4 kilograms?

1kg = 2 half kilograms.

4kg = (2 x 4) half kilograms

4kg = 8 half kilograms.

2. Peter bought 6 kg of sugar. If he packed it in half kilogram packets, how many $\frac{1}{2}$ kg packets did he get?

1kg = 2 half kg

6kg = (6 x 2) half kg packets

6kg = 12 half kilogram packets

3. How many $\frac{1}{4}$ kg of packets of salt can fill a 20 kg packet?

1 kg = 4 quarter kilograms

20 kg = (4 x 20) quarter packets.

20 kg = 80 quarter kg packets

ACTIVITY

1. Mary bought 4 kg of millet flour. How many $\frac{1}{4}$ kg of millet flour did she buy?
2. How many $\frac{1}{2}$ kg can fill a 15 kg packet?
3. How many quarter kg are in 40 kg?
4. Find the number of half kg one can get from 12 kg?
5. How many $\frac{1}{4}$ kg are there in 8 kg?
6. Tom bought 10 kg of sugar from the shop. How many half kilograms did he buy?

LESSON XXIV

Content: Changing kilograms to grams (Anew Mk bk4 pg 178)

The gram is the basic unit for mass.

Kg	Hg	g	dg	cg	mg
	1kg	=	1000g		

Examples

1. Change 4 kg to grams

1 k = 1000 g

4 kg = (4 x 1000) g

4 kg = 4,000 g

2. Convert $8\frac{1}{2}$ kg to grams

1 kg = 1000 g

8 kg = (8 x 1000) g

= 8,000 g

$\frac{1}{2}$ Kg = $\frac{1}{2}$ x 1000 = 500 g

$8\frac{1}{2}$ kg = (8,000 + 500) g

= 8,500 g

3. How many grams are there in $12\frac{1}{4}$ kg?

1 kg = 1000 g

12kg = (12 x 1000) g

12 kg = 12,000 g

$\frac{1}{4}$ Kg = ($\frac{1}{4}$ x 1000) g

= 250 g

$12\frac{1}{4}$ kg = 12,000 + 250

= 12,250 g

ACTIVITY

1. Change the following kilograms to grams:

a) 2kg b) 11kg c) 7kg d) $3\frac{1}{2}$ kg e) $9\frac{1}{4}$ kg

2. How many grams are there in $\frac{3}{4}$ kg?
3. Joshua harvested 24 kg of millet. How many grams of millet did he harvest?
4. How many kilograms are there in 35kg to grams?
5. Convert 135kg to grams.

LESSON XXV

Content: Changing grams to kilograms (Anew Mk bk4 pg 179)

Examples

1. Change 5,000 g to kg

1,000 g = 1 kg

3,000 g = 3,~~000~~

1,~~000~~

3,000 g = 3kg

2. Convert 7,500 g to kg.

1000 g = 1 kg

7,500 g = ~~7500~~ 15

~~1000~~ 2

= 15

2

$= 7\frac{1}{2}$ kg

3. How many kilograms are in 35,000 g?

1,000 g = 1 kg

35,000 g = 35~~000~~

1~~000~~

= 35 kg

ACTIVITY

1. Change the following to kilograms;
   a) 4,000 g b) 6000 g c) 1,500 g d) 13,000 g e) 8,500 g
2. How many kilograms are there in 17,500 g?
3. Our father bought 4500 g of meat. How many kg did he buy?
4. How many kilograms are 60,000 g?

LESSON XXVI

Content: Addition of kilograms and grams

(Anew Mk bk4 pg 231 – 232)

Examples

1. Add :

	kg	g
	2	250
+	3	150
	5	400

2. Add:

	kg	g
	104	420
+	187	350
	291	770

3. Trevor's father weighs 53 kg 550 g and his mother weighs 46 kg 850 g. find their total weight

	Kg	g
Father weighs →	53	550
Mother weighs →	+ 46	850
Total weight →	100	400

ACTIVITY

1. Work out the following:

a)

Kg	g
2	150
+ 4	450

b)

kg	g
13	340
+ 43	280

c)

kg	g
24	410
+ 8	260

e)

Kg	g
49	275
+ 1	105

f)

Kg	g
99	270
+ 2	185

2. What is the total weight when you add 40 kg 130 g to 24 kg 243 g?
3. Alex had 535 kg 50 g of salt, he got 4 kg 834 g more. How much salt has she got altogether?
4. Add 12 kg 125 g to 132 kg 820 g.

LESSON XXVII

Content: Subtraction of kilograms and grams

(Anew MK bk4 pg233 – 234)

Examples

1. Subtract:

kg	g
6 15 ~~7~~5	5 14 ~~6~~40
- 28	450
47	190

2. Work out:

kg	g
18 ~~5~~~~9~~	13 12 ~~4~~23
- 39	651
19	772

3. Mary had 40 kg 350 g of meat. She sold 26 kg 850 g of it.

	Kg	g
She had →	3 9 ~~4~~0	13 350
She sold →	- 26	850
	13	500

ACTIVITY

1. Work out the following:

a)

Kg	g
8	366
-3	245

b)

kg	g
79	820
- 31	410

c)

kg	g
57	600
- 21	400

e)

Kg	g
18	450
- 7	456

f)

kg	g
36	426
- 11	588

2. Micheal had 87 kg 78 g of peas and he sold 43 kg 60 g. what weight of the peas remained?

3. Apollo had 38kg 360g of tea. He sold 17kg 520g of it. How much tea remained?
4. Take away 41kg 500g from 76kg 130 g.
5. Subtract 24kg 490g from 72kg 365g.