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6

Mathematics Revision

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PAPER 1

SECTION A – (40 MARKS)

1. Subtract:

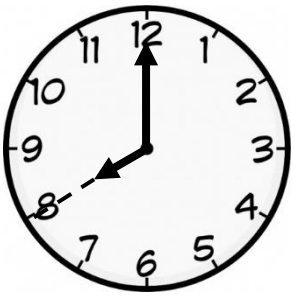
$$\begin{array}{r} 8\ 7\ 6 \\ -\ 1\ 0\ 6 \\ \hline \end{array}$$

2. Write 409,049 in words.

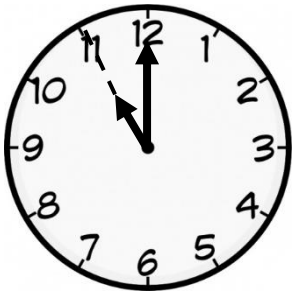
3. Change $501\frac{1}{6}$ to an improper fraction.

4. Joanita started driving her car in the morning and stopped at the time shown on the clock face below.

started



stopped



Find the time she took driving.

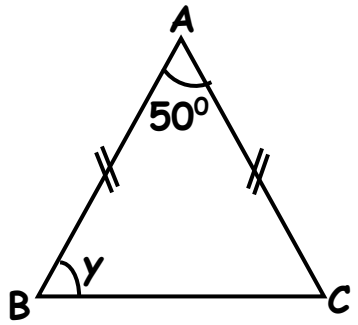
5. The area of a triangular garden is $60m^2$. If the base is 12m, find the height of the triangular garden.

6. Given that **P** = {Vowel letters}. Find the number of subsets that can be formed from set **P**.

7. A farmer has 635 goats, 948 cows and 215 sheep. Find the range of the animals on the farm.

8. Subtract: 102_{five} from 242_{five}, and give your answer in base ten.

9. Find the value of angle marked **y**.



10. A tray of 30 eggs costs sh.9000. How many eggs can one buy with Sh.155,100 ?

11. Use a number line below to multiply;

3 x 2 =

12. Solve: 3k – 2 = 142

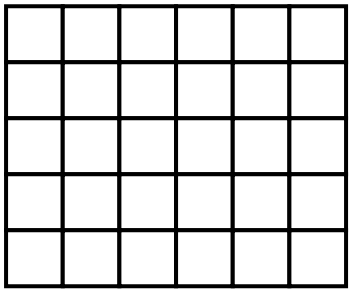
13. Peter had three silos of 124016kg , 31419kg and 214602 kg of beans. How many kgs of beans did Peter have in his silos?

14. Find the smallest number of mangoes that can be shared between 12 girls and 15 boys and leaves no remainder.

15. The distance between Kibuli and Buwaate is 15km and it takes Kamuntu 45minutes to cover the above distance. At what speed in km/hr does he cover the distance?

16. Using a pair of compasses, a ruler and a sharp pencil, construct an angle of 120^0 at point **P**.

17. Shade 20% of the diagram below.



18. Round off 389 to the nearest hundreds.

19. Find the average of 60, 40 and 200.

20. Find the next number in the sequence.

1 , 3 , 6 , 11 , 18 , _____

SECTION B: (60 marks)

21. A father had money in his pocket as follows.

Two notes of fifty thousand shillings.

Five notes of five thousand shillings.

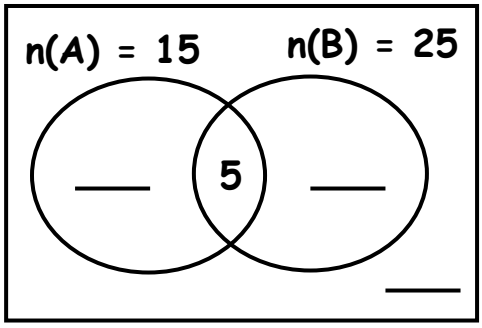
Ten coins of five hundred shillings.

(a) How much money did he have in his pocket altogether? **(2 marks)**

(b) If he bought a watch from the nearby shop at sh.56,500, how much money did he remain with? **(3 marks)**

22. Given that **n(A) = 15** , **n(B) = 25**, **n(A∩B)** = 5 and **n(A∪B)′ = x**.

(a) Use the above information to complete the venn diagram below. **(3 marks)**



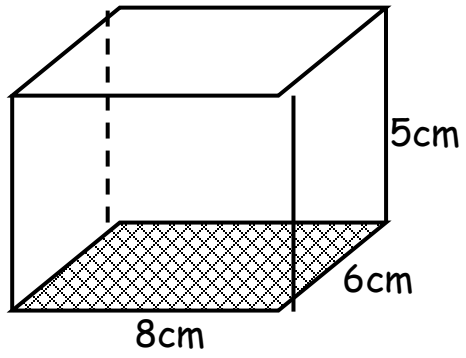
(b) If $n(\Sigma) = 55$. Find the value of **X**. **(2 marks)**

23. Work out:

(a) $\frac{1}{2} - \frac{3}{4} + \frac{5}{6}$ **(2 marks)**

(b) $\frac{1.2 \times 0.09}{0.4}$ **(2 marks)**

24. **<u>Study the cuboid below and answer questions that follow.</u>**

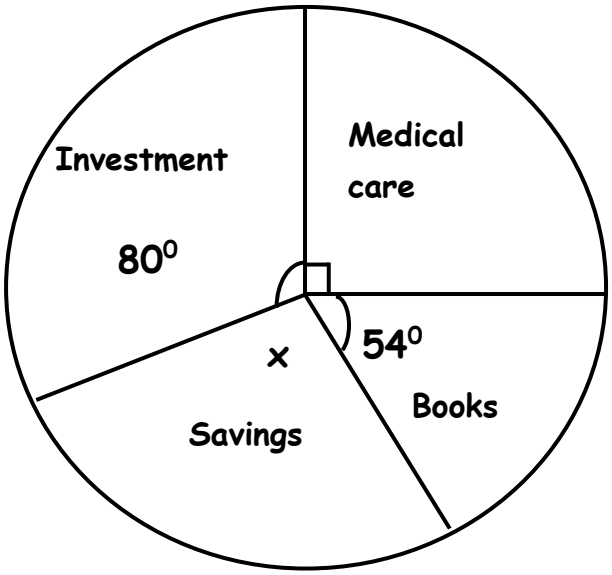


(a) Find the perimeter of the shaded part. **(2 marks)**

(b) Find the total surface area of the cuboid above. **(3 marks)**

25. The sum of 4 consecutive integers is 46. Find the numbers. **(5 marks)**

26. <u>The pie-chart below shows how a man spends sh.360,000. Use it to answer questions that follow.</u>



(a) Find the value of **X**. **(2 marks)**

(b) Express the sector for medical care as a percentage. **(2 marks)**

(c) How much more money does he spend on investment than books?

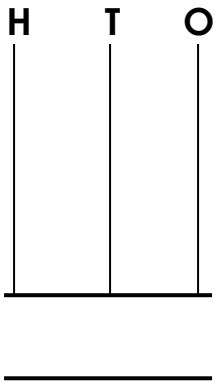
(2 marks)

27. (a) With the help of a ruler , a sharp pencil and a pair of compasses only construct a rectangle **ABCD** where **AB = 7cm** and **BC = 5cm**.

(4 marks)

(b) Measure the diagonal $\overline{AC}$. **(1 mark)**

28. Represent "four hundred three" on the abacus below. **(1 mark)**



(b) What number has been expanded to give? **(2 marks)**

$(5 \times 10^{1}) + (8 \times 10^{0}) + (3 \times 10^{-1})$

(c) Write the number expanded in 28(b) above in words. **(2 marks)**

29. Work out correctly.

(a) **(2 marks)**

Metres	Centimetres
49	65
+ 30	55

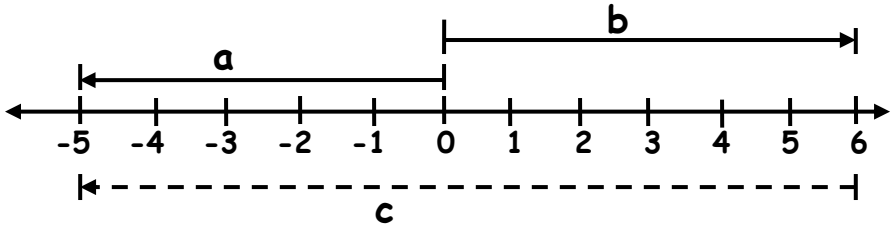
(b) **(2 marks)**

Hours	minutes
15	05
- 30	55

(c) How many 200gm packets of salt can be got from a 3.2kg of salt?

(2 marks)

30. <u>Use the numberline below to answer the questions that follow.</u>



(i) Write the integers represented by the arrows. **(1 mark @)**

c = _____ b = _____

(ii) Write the subtraction statement for the arrows shown above.

(3 marks)

31. A father shared one million among his three sons, Peter, Mark and Solomon in the ratio of 1 : 4 : 5 respectively.

(a) How much did Mark and Solomon get altogether? **(3 marks)**

(b) How much money did Mark get than Peter? **(2 marks)**

32. A parent bought three juice bags at different costs.

Shs. K

Shs. K - 600

Shs. 2K

(a) Write an algebraic expression for the total cost of the bags.

(2 marks)

(b) If the value of K is Shs. 1650. Find the total cost of the three bags. **(2 marks)**

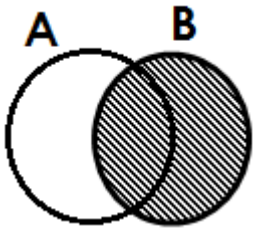
PAPER 2

SECTION 'A' (40 Marks)

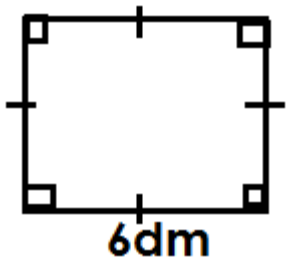
1. **Add:** 5 3 + 1 9

2. Find the value of **4** and **6** in the number; 5 **4** 3 **6** 2

3. Describe the shaded region below.



4. Workout the area of the figure below;

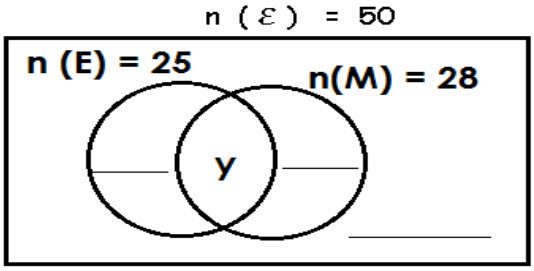


5.	If represents 10 trees, how many trees are represented by; ?	6	Complete the sequence below; 9, 14, 21, 30, 41, _____
7.	**Solve**: x + 3 = 12	8.	Joan read XLIX pages of a book. How many pages in Hindu Arabic did she read?
9.	Add: $314_{five} + 23_{five}$	10.	Given that a $= \frac{1}{2}$ and b $= \frac{1}{3}$. Find the value of a – b.

11	A taxi driver took 3 hours 46 minutes to drive from Kampala to Mbarara and 2 hours 5 minutes from Mbarara to Kasese. How much time he take altogether?
12	Use a pair of compasses to construct an angle of 60°.

13.	Draw a kite and indicate the line of symmetry.	14.	Write the number that has expanded; 20000 + 500 + 7
15.	With the help of a venn diagram, show that all ladies (L) are Female (F)	16.	Workout: 4 5 6 x 2 4
17.	Musoke bought a bag at sh. 9,500 and sold it to Kafeero at sh. 10,000. Calculate Musoke's profit.	18.	Round off **6084** to the nearest hundreds.

19	Simplify: $^{+}3 + {}^{+}6$	20	If set K = {All vowels }, find **n(K)**.
SECTION 'B' (60 Marks)			
21	In a class of **50** pupils, 28 like Mathematics (**M**), **25** pupils like English (**E**), **Y** pupils like both subjects and **2** like neither of the subjects. Represent the above information on the venn diagram below. ***(3mks)***		

	
b)	Find the value of **y**. ***(2mks)***
22	In a group of 200 people, $\frac{1}{4}$ of them are males and the rest are female. What fraction of the group are female? ***(2mks)*** b) How many more females are in that group? ***(3mks)***

23) Complete the magic square below by finding the values of the unknowns.

(5 marks)

7	a	5
b	4	c
3	d	1

24a The tally table below shows the number of mangoes on each trader's stalls. Use it to answer the questions that follow.

NAME	TALLIES
Apio	卌 卌 卌 卌 卌
Akello	卌 |||
Amooti	卌 卌 卌
Acio	卌 卌
Apolot	卌 卌 ||

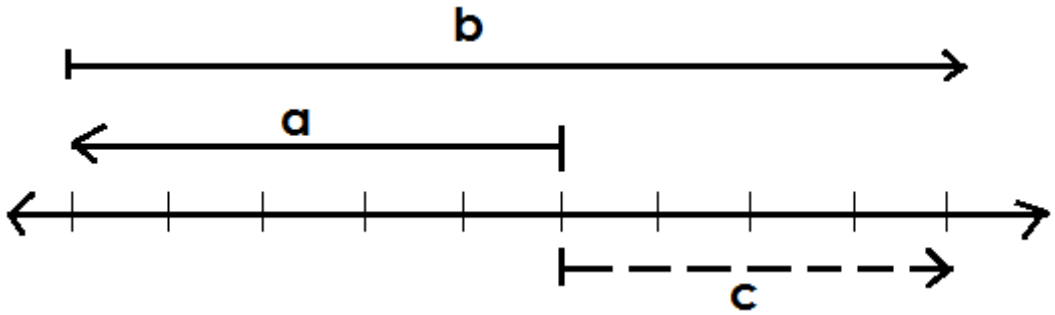
a) Which trader has the least number of mangoes? ***(1mk)***

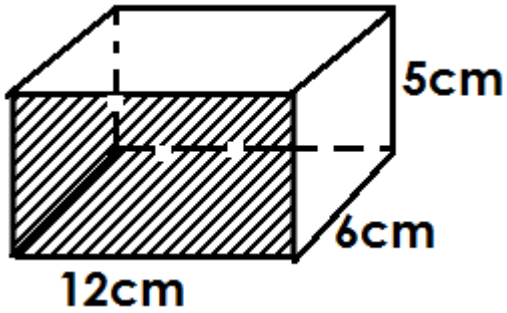
b) How many more mangoes does Apio have than Apolot? ***(2mks)***

c) Find the total number of mangoes on all the stalls. ***(2mks)***

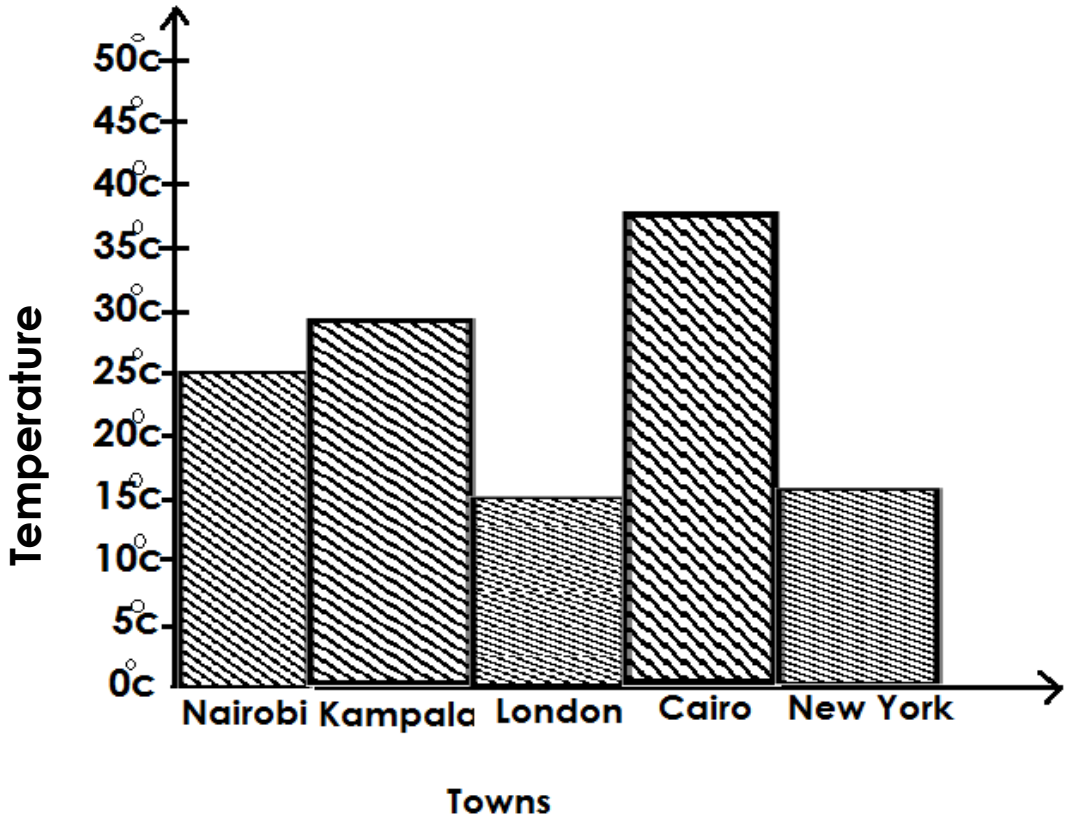
25	Mapeesa bought the following items from a shop; • 2kg of sugar at sh. 2800 per kg. • 4 bars of soap at sh. 3500 per bar. • 3 tubes of toothpaste at sh. 7500. • $\frac{1}{2}$ kg of salt at sh. 1200 per kg		
a)	How much did he spend altogether? ***(4mks)***	b)	If he had 3 ten thousand shilling notes, what was his change? ***(1 mk)***
26.	Using a pair of compasses a ruler and a pencil only, construct a regular hexagon in a circle of radius **4cm.** ***(4mks)***		

b)	Workout the perimeter of the figure. ***(1 mk)***		
27.			
a)	The sum of three consecutive counting numbers is **33**. Find the numbers. ***(4mks)***	b)	Find the range of the numbers. ***(1 mk)***
28.	Divide **147** by **7**. ***(2mks)***		
b)	Share sh. 46,200 equally among **24** children. ***(2mks)***		

c)	A school has 7 classes with 2 streams each. How many pupils are in the school if each stream has 40 pupils? ***(2mks)***		
29.	Find the number which has been expanded below; ***(2mks)*** $(6\times10^2) + (3\times10^2) + (7\times10^0)$		
b)	Find the difference between the value of **6** and the value of **4** in the number; **<u>4</u>** 8 2 **<u>6</u>** 3. ***(2mks)***	c)	Write; **fourty thousand five hundred nine** in figures. ***(1mk)***
30.	Study the number-line and answer the questions that follow.  		

a)	Give the integers represented by; ***(1mk each)*** (i) a = _____ (ii) b = _____ c = _____		
b)	Write a mathematical statement for the above number-line. ***(1mk)***		
31	Use the figure below to answer the questions that follow.  (a) How many edges does the figure have? ***(1mk)*** _____		
b)	Find the area of shaded face. ***(2mks)***	c)	Calculate tits volume. ***(2mks)***

32. The bar graph below shows the mass of different pupils in primary five.



a)	Which town has the highest temperature? ***(1 mk)***	b)	Identify the towns with the same temperature. ***(1 mk)***
c)	What is the temperature of Kampala? ***(1 mk)***	d)	Find the total temperature of the five towns. ***(2mks)***

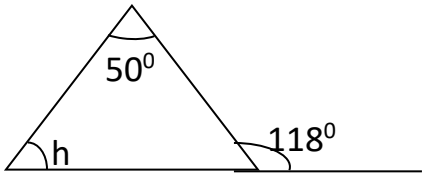
PAPER 3

SECTION A (20 QUESTIONS – 40 MARKS)

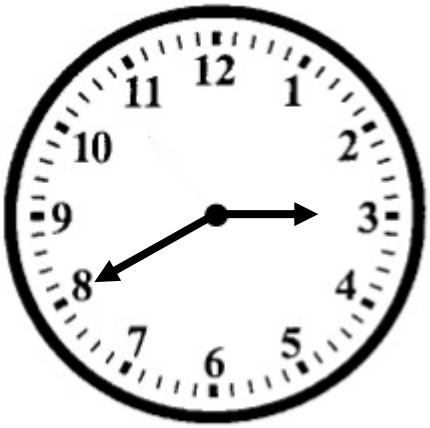
1. Write 24 in words.	2. Given that set A = { 1, 3, 4, 5, 6} Find n(A)
3. Work out; 9 4 7 – 3 8 1 _____ _____ _____	4. Find the least number that is exactly divisible by 9 or 4 leaving a remainder of 1.
5. Express 1: 2 as a percentage.	6. Multiply the inverse of +4 by 3

7. Ritah scored the following marks in homework; 8, 7, 8, 6, 8 and 6. How many times did she score above the average mark?

8. Study the diagram below and find the value of **h** in degrees.



9. Change the afternoon time shown on the clock face below in 24 hour clock.



10. Three similar books costs shs. 1800. How much money can one pay for five similar books?

11.

P

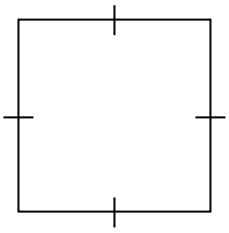
Q.

The distance from P to Q is 1 metre. If Royd's stride is 20cm long, how many similar strides will he make from P to Q?

12. Remove brackets and simplify ;
$5x - (3 + 2x)$

13. Given the number 987, find the product of the value of 9 and the place value of 8.

14. Draw all possible lines of symmetry in the figure below.

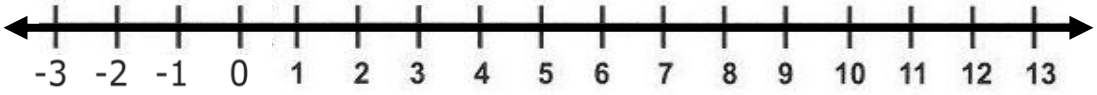


15. Multiply the missing number by a half.

10, 20, 30, 40, 50, _____

16. In a mathematics exam, $\frac{1}{3}$ of the questions are knowledge (K), $\frac{1}{4}$ of the remainder are comprehension (C) and the rest are application (A). Find the fraction of comprehension questions.

17. Show five groups of +2 on the numberline below.

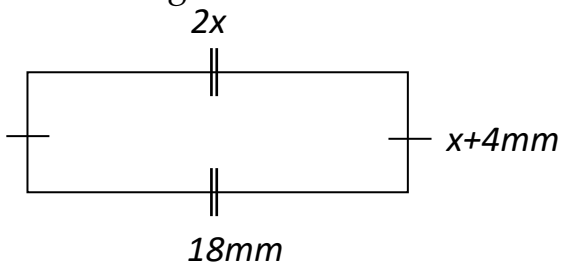


18. Divide; 2484 by 23.	19. Find the complement of 40^0
20. Add; 9kg + 2kg = _____	

SECTION B (12 QUESTIONS – 60 MARKS)

21. If x = 40, y = 50 and P = 10, find the value of			**(3**
(a) x + y	(ii) y – p	(iii) $\frac{x+y}{p}$	

22. Study the rectangle below.



(a) Find the value of x. **(2 marks)**

(b) Find the actual width **(2 marks)**

(c) If a caterpillar moved round the above shape twice, what distance did it cover? **(2 marks)**

23. A man went to the market with 4 notes of five thousand shillings each and bought the following items; **(4 marks)**

2kg of salt at shs. 1800 each

1 ½ kg of sugar at shs. 4,000 per kg

3kgs of rice at shs. 7,200

(a) Find his total expenditure.		
(b) Work out the man's change.	**(2 marks)**	
24. (a) A baby slept from 8:10p.m to 9:00p.m. For how long did the baby sleep?	**(2 marks)**	
(b) Convert 500 minutes to hours.	**(2 marks)**	

(c) Work out ; Hours Minutes **(2 marks)**

	Hours	Minutes
	8	47
+	4	54

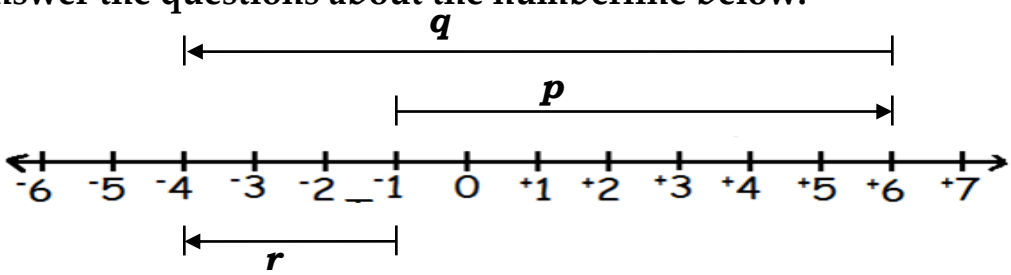
25. With the help of a sharp pencil, ruler and a pair of compasses, construct a triangle ABC where angle BAC = 60^0, line AC = 6cm and line AB = 4.5cm **(3 marks)**

(b) Measure ; (i) line BC _____ **(2 marks)**

(ii) angle ACB _____

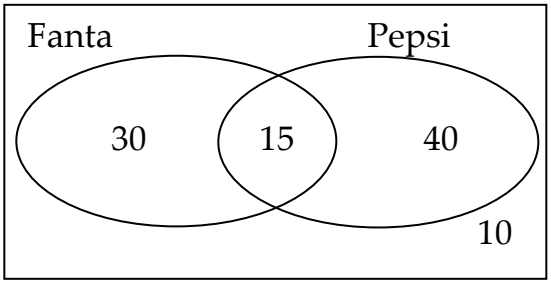
26. Ivan scored the following marks in the midterm two.

Subject	Mathematics	Science	English	Social Studies
Mark	98	89	79	97

	(a) What was his best done subject?	**(1 mark)**
	(b) Find his total marks in Mathematics and English.	**(2 marks)**
	(c) Find his overall total mark in all the subjects.	**(2 marks)**
	27. Answer the questions about the numberline below.  (i) Write down the integers represented arrow; p = _____ q = _____ r = _____	**(3 marks)**
	(ii) Find the value of **r + + 9**	**(2 marks)**

	28. In a group of 900 guests, $\frac{2}{3}$ are children and the rest are adults. (a) Find the number of children.	**(2 marks)**
	(b) If $\frac{7}{10}$ of the adults are women, find the number of men.	**(2 marks)**
	29. The sum of three consecutive even numbers is 48. If the smallest number is x + 1, (a) State the other two numbers in terms of $\boldsymbol{x}$.	**(2 marks)**
	(b) Find the value of $\boldsymbol{x}$.	**(2 marks)**

(c) Find the biggest number.	**(2 marks)**
30. (a) Write 456 in standard form.	**(1 mark)**
(b) Round off 9.783 to the nearest one decimal place.	**(1 mark)**
(c)Write the present year in words.	**(1 mark)**
31. The venn diagram below shows the number of people who like different drinks. Study it and answer the questions that follow.	



(a) How many people like;

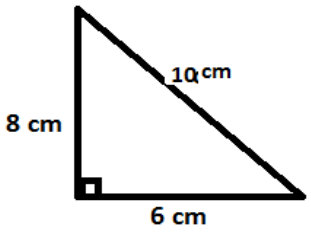
(i) Fanta?

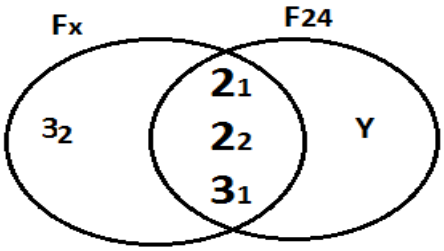
(ii) Pepsi only

	(2 marks)
(b) How many people do not like Fanta?	**(2 marks)**
(c) How many people are in the group altogether?	**(2 marks)**
32. (a) Find the unknown base; $23_{k} = 15_{ten}$	**(3 marks)**
(b) Write 102_{three} in words.	**(1 mark)**
(c) Add $1_{four} + 2_{four}$ = _____	**(1 mark)**

PAPER 4

1.	Add: 4 3 2 + 1 3 2 _____ _____	2.	Find the square root of 16.
3.	Given that set B = $\{4, 6, 8\}$. Find the number of subjects in set B.	4.	Expand 8,693 using powers of ten.
5.	Change 7 metres to cm.	6.	Express 3,596 in standard form.
7.	Subtract: $\frac{3}{4} - \frac{1}{6}$		
8.	The cost of 4 pens is shs. 2,000. Find the cost of 3 similar pens.		

9.	Round off 4467 to the nearest hundreds.	10	Work out: 3 + 4 = _____ (finite 5)
11.	Add: $1\ \ 2\ \ 3_{five}$ $+\ 2\ \ 2\ \ 2_{five}$ _____ _____	12	Divide 60 by 3.
13.	Write 78,974 in words.	14.	Express 87 in Roman numerals.
15.	Change 24_{ten} to base three.		
16.	Calculate the area of the figure below.  		

17.	Express $\frac{1}{2}$ as a decimal.	18.	Work out: (5 x 84)+(5 x 16) using the distributive property.
19.	Multiply: 1 4 X 1 2 _____ _____	20	Express $4\frac{1}{2}$ as an improper fraction.
	SECTION 'B' (60 MARKS)		
21.	Use the Venn diagram below to answer the questions that follow.  		
a)	Find the value of F_x ***(2mks)***	b)	Find the value of Y ***(2mks)***

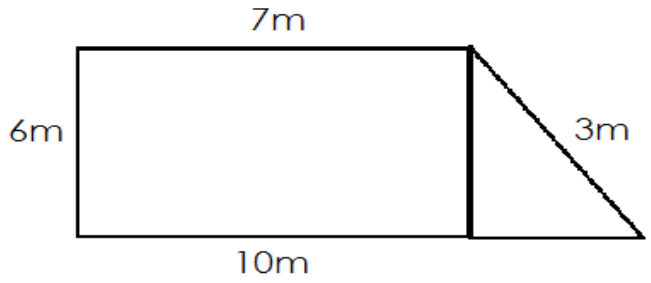
c) Find the GCF of F_x and F_{24} ***(2mks)***

22 Complete the table below. ***(1 mark each)***

Items	Quantity	Unit cost	Total Amount
Beans	3kg	shs. 2000	shs. _____
Rice	_____ kg	shs. 3000	shs. 6000
Sugar	2kg	shs. _____	shs. 8000
Meat	_____ kg	shs. 10,000	shs. 20,000
		Total	shs. _____

23. The sum of three consecutive counting numbers is 33. Find the numbers. ***(4 marks)***

24. Use the trapezium below to answer the questions that follow.



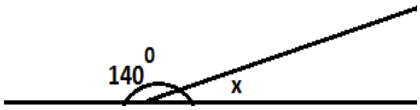
Find the perimeter of the above figure. **(2mks)**

Calculate the area of the above figure. **(3 mks)**

25a A lorry covered a distance of 300km in 5 hours. What was its average speed? **(2mks)**

b) How long is it from 10.30am to 11.50am? **(2 mks)**

Express 5km as metres. **(2mks)**

26a)	Using a pair of compasses, ruler and a pencil only, construct an angle of 90° **(2 mks)**			
b)	Find the value of the angle marked with letter x. ***(2 mks)*** 			
27a	What is the least number of books that can be shared among 10 or 12 children without leaving a remainder? **(2 mks)**			

b)	Find the HCF of 12 and 16. **(2 mks)**	c)	Add: $\frac{1}{2} + \frac{1}{3}$ ***(2 mks)***
28	Use the digits 7, 4 and 9 to answer the questions that follow.		
(a)	Form the largest number from the above digits. ***(1mk)***	b)	Form the smallest number from the digits above. ***(1mk)***
c)	Find the sum of the largest and the smallest numbers formed. ***(2 mks)***	d)	Find the difference between the largest and the smallest number formed. ***(2 mks)***

29a) What is $\frac{2}{3}$ of 18?

(2mks)

b) Shade $\frac{1}{2}$ in the diagram below.

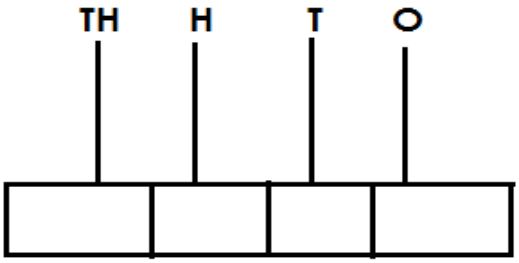
(2 mks)

c) Name the fraction below. ***(1mk)***

$\frac{1}{3}$ _____

30. Show 3,457 on the abacus below.

(2 mks)



b) Write the number shown above in words. **(2 mks)**

c) What is the value of **9** in the number **6,983**. **(2mks)**

31a) Find the next number in the sequence.

(2 mks)

2, 3, 5, 7, _____

b Given that represents 7 balls. How many balls are represented by ? ***(2mks)***

32. Using a pair of compasses, ruler and a pencil only, construct a regular hexagon in a circle whose radius is 4cm. **(4 mks)**

PAPER 5

SECTION A – (40 MARKS)

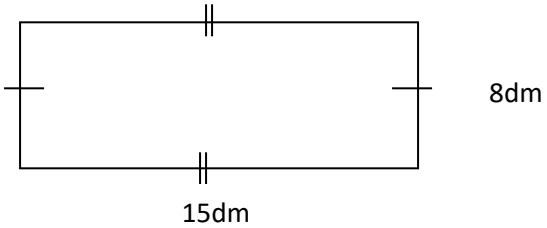
33. Multiply;

    17 x 2

34. Name the set symbol;

    { }

35. Maria walked round the figure below three times. Calculate the total distance she covered.



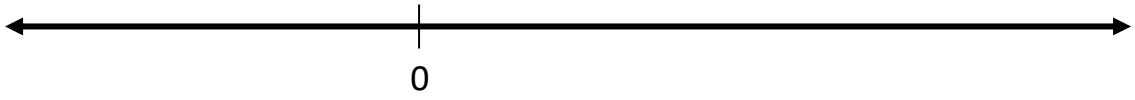
36. Find the missing number in the sequence

    10, 19, 18, 27, 26, _____

37. A primary five pupil who is in boarding spent $\frac{3}{8}$ of her day packing school items, $\frac{1}{8}$ sending goodbye messages and the remainder of the day resting. For how many hours did this pupil rest?

38. John who owns a retail shop, bought a dozen of counter books at shs. 36,000. He sold each book at shs. 4,000/=. How much profit did he make?

39. Add; -4 + 7 = _____ with the help of a well drawn number line.



40. In a class, there are 48 boys. If 12 boys were absent on Monday. Express the number of boys present in Roman numerals.

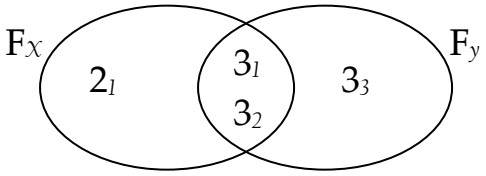
41. A bag contains 8 blue pens and 6 red pens. If a primary six boy is chosen to randomly pick a pen, what is the probability of him picking a red pen?

42. Use > , < or = to complete correctly.

$3^2 + 2^2$ _____ $3^2 \times 2^2$

43. With the help of a sharp pencil, ruler and pair of compasses only, construct an angle of 45^0.

44. Study the venn diagram below and find the LCM of F_x and F_y.



45. Change 120 minutes into hours.

46. What is the place value of 6 in 463.21?

47. Add: 3 + 4 = ____ (mod 5)

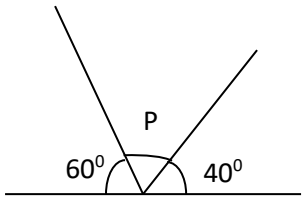
48. Apply Bodmas correctly;

$$\frac{2}{3} - \frac{5}{6} + \frac{1}{4}$$

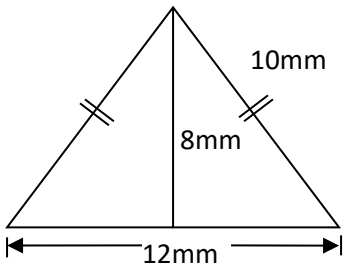
49. Given that six books cost shs. 7,200. How many similar books can one get from shs. 6,000?

50. Solve; K + K = 18

51. Find the value of P in the figure below.



52. Work out the area of the figure below.



SECTION B

53. On a farm, there are 350 animals. $\frac{3}{5}$ of them are cattle and the rest are goats.

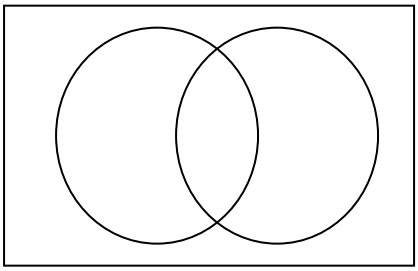
a) How many cattle are on that farm? (1 mark)

b) What fraction of the animals are goats? (2 marks)

c) How many more cattle than goats are on that farm? (2 marks)

54. In a club of 50 members, 25 play cricket (C), 33 play Hockey (H), 'x' play both while five play other games.

a) Represent the above information on the venn diagram (2 marks)



b) How many members play both games? (1 mark)

c) How many members did not play Hockey (H)? (1 mark)

55. Makmot scored the following scores in a series of maths tests:

40, 85, 60, 55, 70

(a) Find the median score. (2 marks)

(b) Work out the range of the scores. (1 mark)

(c) Calculate the average of the scores. (2 marks)

56.(a) Find the unknown base in; $100_x = 1100_{three}$ (3 marks)

(b) The table below shows the addition operation in base six. Complete it correctly. (2 marks)

+	3	4
2	_____ six	10_{six}
5	12_{six}	_____six

57.(a) With the help of a sharp pencil, ruler and pair of compasses only, construct a triangle ABC where line AB = 6cm, line BC = 4.5cm and angle ABC = 90^0. (4 marks)

b) Measure angle BAC _____ (1 mark)

58. Dhikula went shopping and bought the following items;

2kg of Rice at shs. 2500 per kg
1½ of meat at shs. 9,000 per kg
3 packets of Royco at shs. 1200.
500g of wheat flour at shs. 3,000 per kg.

a) Calculate his total expenditure. (1 mark)

b) If he was given change of shs. 8800, how much money did he give to the cashier? (1 mark)

59. Study the bus time table below and answer questions about it correctly.

STATION	ARRIVAL TIME	DEPARTURE TIME
KWERA		7:10am
LWERA	9:10am	9:30am
BWERA	10:30am	10:45am
NYERA	12:00midday	

a) At what time in 24 hour clock did the bus leave Kwera? (2 marks)

b) For how long did the bus stay at Bwera? (1 mark)

c) Find the total time taken by the bus to move from Lwera to Nyera? (2 marks)

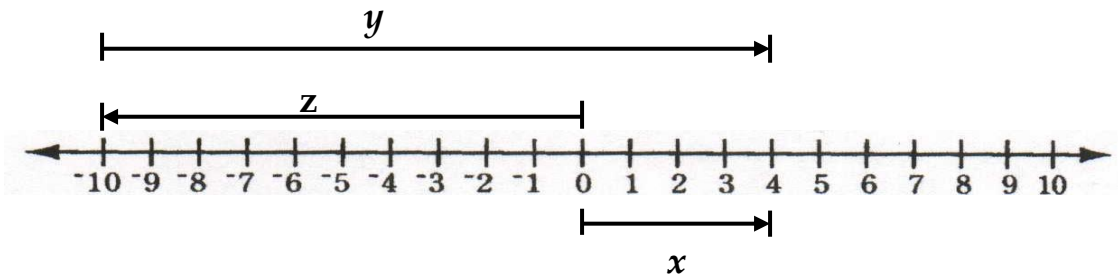
60. Given that x = 3, y = -2, and z = 5, evaluate;

(i) $y^2 + x^2$ (2 marks)

(ii) xyz (2 marks)

(iii) $\frac{4xz}{10}$ (2 marks)

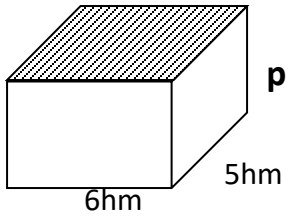
61.Study the number line below and use it to answer questions that follow;



a) Identify the integers represented by arrow; (1 mark @)

b) Write down the addition mathematical statement shown on the number line. (2 marks)

62.The volume of a cuboid below is 120hm^3.Use it to answer the questions that follow.



a) How many faces has the cuboid above? (1 mark)

b) Find the value of **p.** (2 marks)

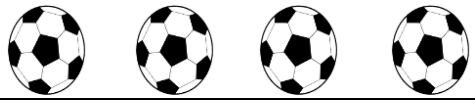
c) Calculate its Total Surface Area (2 marks)

63. The recently released census report showed that 6,426,013 people were in urban areas. Only 1,516,210 people were in Kampala City Authority.

(a) How many people were in other urban areas? (2 marks)

(b) If during the census each person in Kampala City authority received two stickers. How many stickers were given out altogether? (3 marks)

64. Four girls in a primary six class of Greenhill Academy were given balls by their sports teacher as shown on the graph below.

Name of girl	**Balls given**
Juliet	
Joy	
Barbra	
Cissy	

Scale represents 60 balls.

a) How many balls did Juliet get? (2 marks)

b) Who got the least number of balls? (1 mark)

c) How many more balls did Cissy get than Joy? (2 marks)

PAPER 6

SECTION 'A' (40 Marks)

1. Workout:

   5 2 x 3

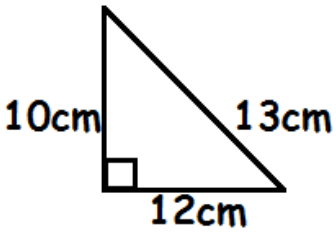
2. Given that set K = { vowel letters},

   Find **n(K)**

3. Find the next number in the sequence below;

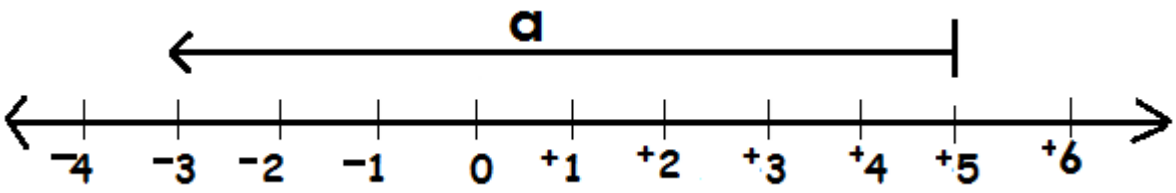
   1, 3, 6, 10, 15, 21, _____

4. Find the area of the figure below;

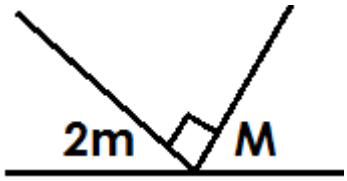


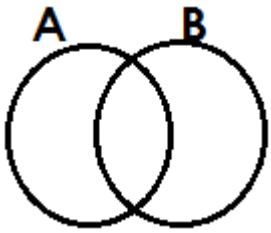
5.	Solve for y: Y + 3 = 15.	6	A girl scored the following points in a game: 4, 3, 4, 5 and 8. Find the range of the points.
7.	**Workout:** **Hours** **Minutes** 3 4 0 + 4 3 5 _____ _____	8.	If Nantale buys 8 books for shs. 48,000, how much will 9 similar books cost?
9.	Using a ruler, a sharp pencil and a pair of compasses only, construct an angle of 60°.		

10. Which integer is represented on the number-line below?



a = _____

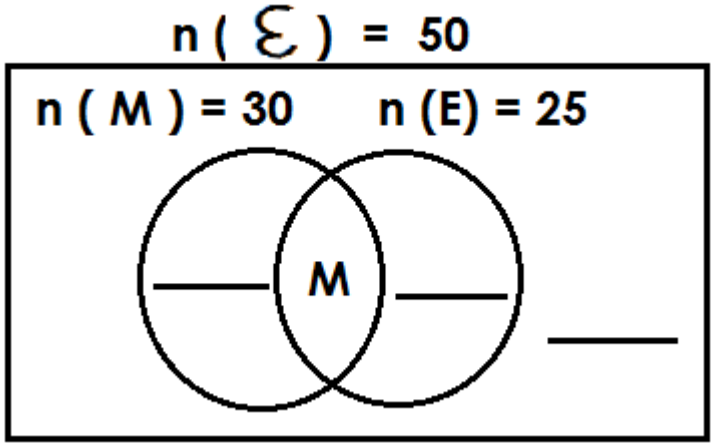
11	How many half litres are in 10 litre jerrycan?	12	Expand **2 6 3 4** using place values.
13	Find the value of **M** in degrees. 	14	Workout: $\frac{1}{5} + \frac{2}{3}$

15.	Find the lowest common multiple of **18** and **12**.	16.	Shade **B** only on the venn diagram below. 
17.	Write in words; **7 2 0 3.**	18.	Convert 8km to metres.
19.	By selling an article at shs. 3500, a trader made a loss of shs. 1,000. At what price did the trader sell the article?	20	Express **XXXVI** in Hindu Arabic numerals.

SECTION 'B' (60 Marks)	
21	Using a ruler, a sharp pencil and a pair of compasses only, construct a regular hexagon in a circle of radius 4cm. ***(3mks)***
b)	Calculate its perimeter. ***(2mks)***

22 In a class of 50 pupils, 30 like Mathematics (M), 25 like English (E), 2 like neither of the two and M pupils like both subjects.

a) Complete the venn diagram below. ***(3mks)***



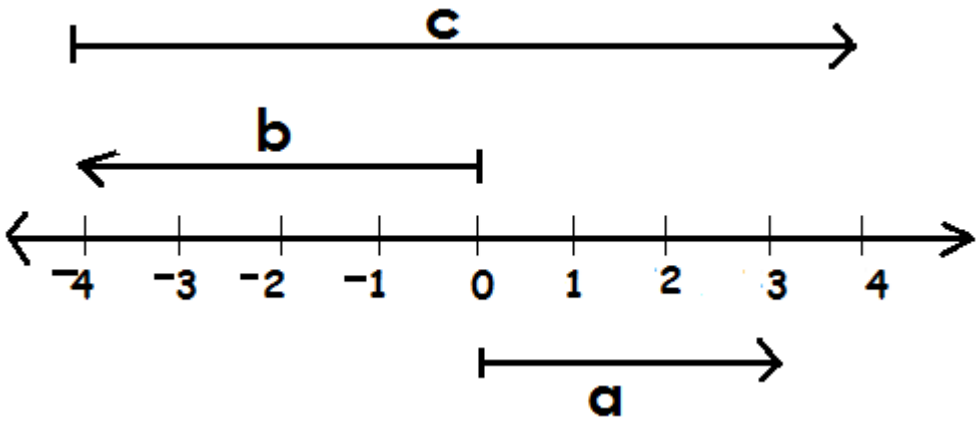
b) Find the value of M. ***(2mks)***

23 Sarah scored the following marks in the End of term two examinations.

SCIE	R.E	MTC	ENG	SST
80	85	90	90	70

Find her median mark. ***(2mks)***

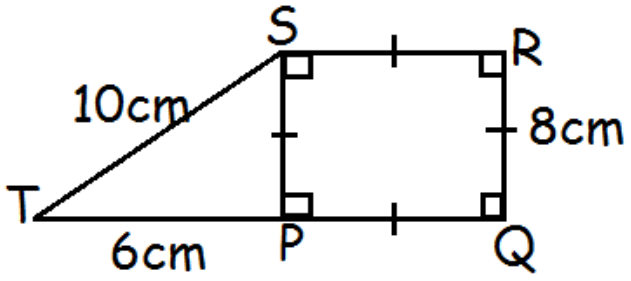
b)	What was her modal mark? ***(1mk)***	c)	Calculate her average mark. ***(3mks)***
24	What is the place value of **1** in 312_{five}? ***(2mks)***	b)	Convert 213_{five} to base **ten**. ***(3mks)***

25	Musasizi went to the market and bought the following items; • 2kg of sugar at shs. 3000 each kilogram. • 1 $\frac{1}{2}$ kg of beans at shs. 4000 per kilogram. • 4kg of maize flour at shs. 8000.		
a)	Find his total expenditure. ***(3mks)***	b)	If he was given a change of shs. 1500, how much was he having at first? ***(2mks)***
26	Use the number-line below to answer the questions that follow.  		

a)	Write the integers represented by arrows. ***(3mks)*** (iii) a = _____ (iv) b = _____ (iii) c = _____	b)	Write the addition mathematical statement. ***(1mk)***
27	Workout: ***(3mks)*** $\frac{0.48 \times 0.6}{0.09}$	b)	Simplify: ***(2mks)*** $\frac{1}{3} - \frac{1}{2} + \frac{1}{4}$
28.	A motorist covered a distance at a speed of 50km/hr. calculate the time she took to cover a distance of 150km. ***(2mks)***		

b)	Convert 400 minutes to hours. ***(2mks)***		
29.	The sum of 3 consecutive counting numbers is **21**.		
a)	Find the numbers. ***(3mks)***	b)	Workout their range. ***(2mks)***
30.	Joan, Juliet and Alice shared shs. 12,000 in the ratio of 2:3:1 respectively.		
a)	How much did each get? ***(4mks)***	b)	What fraction did Alice get? ***(1mk)***

31 Use the figure below to answer the questions that follow.



a) Find the area of square **PQRS**. ***(2mks)***

b) Workout the area of the triangle **PST**. ***(2mks)***

c) Calculate the perimeter of trapezium **TQRS**. ***(2mks)***

32.	What number has been expanded to give; $(3 \times 10^3) + (4 \times 10^2) + (5 \times 10^1) + (6 \times 10^0)$? ***(3mks)***
b)	Round off **6 2 4 7** to the nearest hundreds. ***(2mks)***

PAPER 7

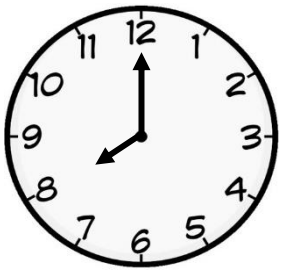
33. Take away : 9 8
- 7 7

34. Simplify: 2k + 3p – k - p

35. Given that a = $\frac{2}{3}$ and b = $\frac{1}{4}$.
Find the value of a – b.

36. Use a pair of compasses to construct an angle of 120^0.

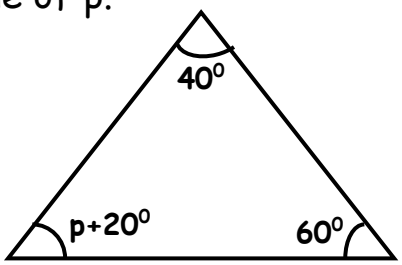
37. Nambi goes to rest at the time shown on the clock face below for 2 hours. Draw a clock face showing the time she wakes up.



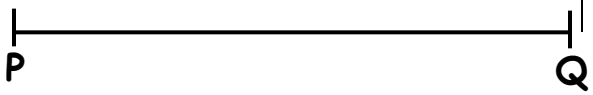
38. Joan read XLIX pages of a book. How many pages in Hindu Arabic numerals did she read?

39. The sum of two consecutive numbers is 9. Find the larger number.	40. A Half kilogram of Rice costs sh.2000. What will be the cost of 2kg of similar Rice?
41. Convert $33\frac{1}{3}$ to an improper fraction.	42. Find the sum of 110_{two} and 101_{two}.
43. Given th represents 10 books and represents 5 books. Draw pictures to represent 85 books.	44. R = { factors of 3}. List down all the subsets of **R**.

45. In the triangle below, find the value of p.



46. Measure the line segment below and fill in the length of PQ correctly.



PQ = _____ mm

47. Express 1342 hours in twelve clock system.

48. Write the number that has been expanded .
20000 + 600 + 7

49. Ndahura's birthday will be celebrated next week. What is the probability that the day will be starting with letter "T"?

50. A motorist covers a certain journey at 60km/hr for 3 hours 30 minutes. Calculate the distance covered by the motorist.

51. Work out: $(\frac{1}{4} \text{ of } \frac{1}{3}) \div \frac{1}{12}$	52. Draw a kite and indicate the line of symmetry.

SECTION B (12 QUESTIONS – 60 MARKS)

53. Ketra scored the following marks in a weekly test.

Subject	Eng	Math	Scie	SST	R.E
Marks	75	100	75	80	90

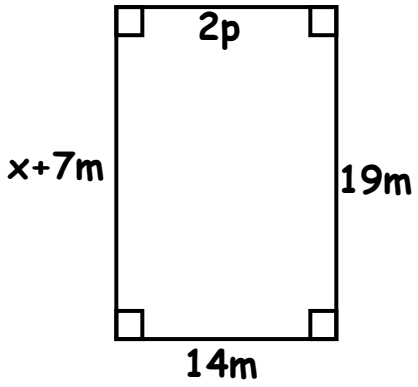
(a) Calculate the range of her scores. **(1 m**

(b) Find the modal mark. **(1 m**

	(c) Calculate the average score <u>above</u> her modal mark?.	**(3 marks)**
	54. a) Write the place value of 3 in 230_{five}.	**(1 mark)**
	(b) Write in words 122_{three}.	**(2 marks)**
	(c) Find the value of K. $21_k = 13_{ten}$	**(2 marks)**

55.	In a school of 2400 pupils, $\frac{3}{8}$ of them are boys and the rest are girls. (a) Find the fraction that represents girls.	**(2 marks)**
	(b) How many boys are in the school?	**(1 mark)**
	(c) If $\frac{3}{5}$ of the girls are in upper school, how many girls are in lower school?	**(2 marks)**

56. ABCD below is a rectangle. Use it to answer questions that follow.



(a) Find the value of ;

(i) x

(ii) p

(2 marks)

(b) Calculate the area of the rectangle. **(2 marks)**

(c) Find twice the perimeter of the above rectangle. **(1 mark)**

	57. Find the next number in the sequence. (a) 110 , 130 , 150 , 170 , _____ .	**(1 mark)**
	(b) Calculate the square root of 196.	**(2 marks)**
	(c) Work out the least common multiple of : 30 and 40.	**(2 marks)**
	58. (a) Using a pair of compasses, a ruler and a sharp pencil, construct a triangle ABC such that BC – 8cm, AB – 6cm and angle ABC = 90^0.	**(3 marks)**

(b) Measure ;

(i) line AC. (ii) ∠BCA

(2 marks)

59. Complete the shopping bell.

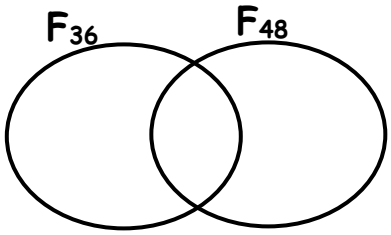
Item	**Quantity**	**Unit cost**	**Amount**
Books	$1\frac{1}{2}$ dozen	Shs.4,000	Shs. _____
Pens	_____ dozen	Shs. 9,000	Shs. 18,000
Toothpaste	3 tubes	Shs._____	Shs. 7,500
Omo	$\frac{1}{2}$ kg	Shs.8,600	Shs. _____
		Total	Shs. _____

(5 marks)

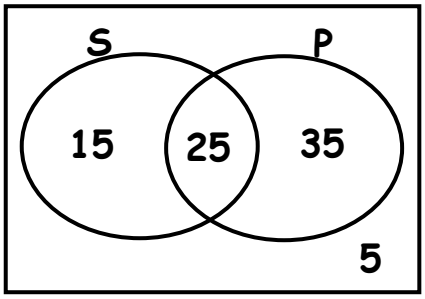
	60. Given the number 4098. (a) Represent the number on a well drawn abacus.	**(1 mark)**
	(b) Round off the above number to the nearest tens.	**(2 marks)**
	(c) Find the sum of the place value of 4 and the value of 9 in the above number.	**(2 marks)**
	61. Work out correctly. a) Hours minutes 14 42 + 12 28 _____ b) weeks days 8 3 - 2 5 _____	**(2 marks)**

	(c) Express 96 minutes as hours and minutes.	**(3 marks)**
	62. (a) A half of a number is 24. Form an equation and find the number.	**(3 marks)**
	(b) What is $\frac{3}{8}$ of the same number?	**(2 marks)**
	63. a) The LCM of two numbers is 24. Their GCF is 2. If one of the numbers is 8, find the second number.	**(2 marks)**

(b) Represent the Prime factors of 36 and 48 on the venn diagram. **(3 marks)**



64. The Venn diagram shows the number of pupils who like swimming (S) and Physical Education (P) and other sports activities. Study it and answer the questions that follow.



(a) How many pupils like;

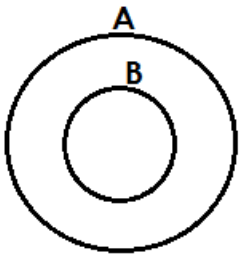
(i) Swimming **(1 mark)**

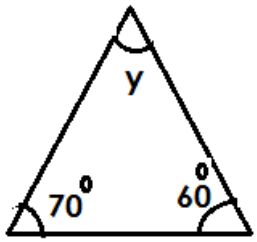
(ii) Physical Education **mark)**

	(b) How many pupils like other sports that have not been included here?	**(1 mark)**
	(c) What is the probability of choosing a pupil who like sonly one game to be the group leader?	**(2 marks)**

PAPER 8

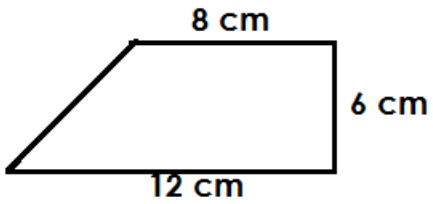
1.	Multiply: 4 3 X 2 _____ _____	2.	Find the value of x. X + 6 = 15
3.	Round off 4, 567 to the nearest hundreds.	4.	Find the LCM of 4 and 6.
5.	Express 3:5 as a fraction.	6.	60% of class are girls and the rest are boys. What percentage of the class are boys?
7.	Work out: 8 – 9 + 3		

8.	What number has been prime factorized? $2^2 \times 3^2$		
9.	Write in figures. Twelve thousand, six hundred six	10	Given the Venn diagram below, shade part A n B. 
11.	Convert $2\frac{1}{2}$ hours to minutes.	12	The cost of 4 pens is shs.2000. Find the cost of 2 similar pens.
13.	Express 74 in Roman numerals.	14.	Divide 1616 by 4
15.	What is the GCF of 6 and 15?		

16.	Decrease 24 in the ratio of 2:3		
17.	A car covered a distance of 240km in 3 hours. What was the car`s average speed?	18	Convert 0.6 as a percentage.
19.	Find the value of angle marked with letter Y. 	20	Using a pair of compasses, ruler and a pencil only construct an angle of 90^0.

	SECTION 'B' (60 MARKS)
21.	Use the digits 3, 5 and 7 to answer the question that follow;
a)	Form the smallest three digit number from the above digits. ***(1mk)***
b)	Form the largest three digit number from the above digits. ***(1mk)***
c)	Find the sum of the smallest and the largest number formed. ***(2mks)***
22.a)	Increase 200 by 10% then by 20%. ***(3 marks)***
b)	What is 30% of 400? ***(2 marks)***

23. a	Add: Wks Days **(2 marks)** 4 5 + 4 4 _____	c)	Express 500og as kg.
b)	Add: Hours Minutes **(2 marks)** 2 4 0 + 3 5 0 _____		
24.	The sum of three consecutive counting numbers is 18. Find the numbers. **(4mks)**		
25. a)	Mary went to the market and bought the following items. • 3 kg of posho at sh. 2000 per kg. • 2kg of beans at shs.3,200 per kg. • 4 tomatoes at shs.1000		

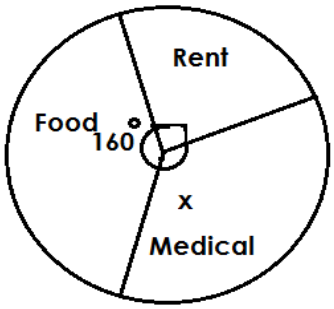
	Calculate her total expenditure. ***(4 marks)***
b)	If she went with shs.20,000, how much was her change? **(2 mks)**
26a)	Find the area of the trapezium below. **(2 mks)** 
b)	The perimeter of a rectangle is 20cm. If its length is 6 cm. Find its area.***(3 mks)***

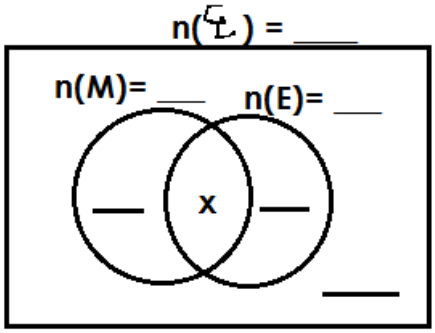
27. a Simplify: $\frac{0.12 \times 0.8}{0.4 \times 0.6}$ **(3 mks)**

b) Work out: $0.6 \div 0.2$ **(2 mks)**

28. Complete the table below. ***(1 mark @)***

Radius (cm)		**3 cm**		**6 cm**	
Diameter (cm)	**8cm**		**10 cm**		**24 cm**

29a	Add: $\frac{1}{6} + \frac{3}{4}$ ***(2 mks)***		
b)	Rearrange the fractions below in ascending order. ***(4 mks)*** $\frac{3}{4}$, $\frac{1}{6}$, $\frac{1}{2}$ and $\frac{1}{3}$		
30. a)	The pie chart below shows how Mr. Opio spends his monthly salary of shs. 720,000. Use it to answer questions that follow.  Find the value of angle marked with letter x.	b) i) ii)	How much does he spend on. Rent **(1mk @)** Food

		iii)	Medical
31 a)	In a class of 90 pupils, 60 like Math (**M**), 40 like English (**E**), **X** pupils like both Math and English while 5 pupils like neither Math nor English. Complete the Venn diagram below. ***(3 mks)***  	b) c)	Find the number of pupils who like both subjects. ***(2 mks)*** Find the number of pupils who like only one subject. ***(2 mks)***
32.	Use the table below to answer the questions that follow.		

Marks scored	60	50	80	7
Number of pupils	2	4	1	

(a)	How many pupils sat for the test? ***(2 mks)***
(b)	What was the modal mark? ***(1 mark)***
(c)	Find the median mark. ***(2 mks)***

PAPER 9

SECTION A (20 QUESTIONS – 40 MARKS)

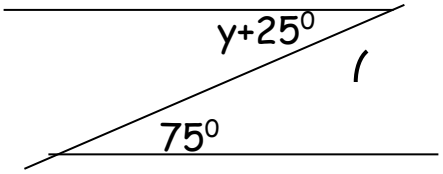
65. Write 426 in words.	66. Write 43 in Roman Numerals.
67. Find the unknown index in; $2^{x+1}=8$	68. One Us dollar ($1) is equivalent to Ush. 3450. How many dollars can you get from Ush. 17,250?

69. With the help of a pencil, ruler and pair of compasses, construct an angle of 45^0

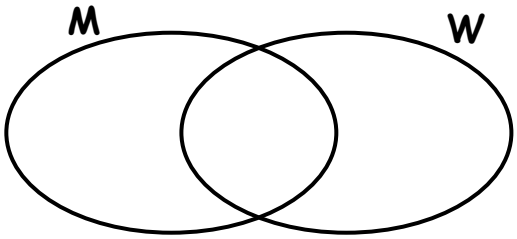
70. Find the missing two numbers in the sequence.
2, 4, 7, 11, ____, ____

71. The temperature of a pawpaw was measured as 15^0C . When the pawpaw was put in the refrigerator, the temperature dropped by 9^0C. Find the new temperature of the pawpaw.

72. Study the diagram below and find the value of y in degrees.



73. Shade set W on the venn diagram below.

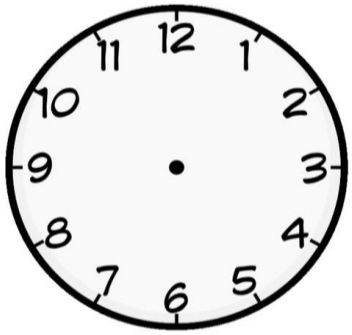


74. Write 1269 in standard form.

75. Four fountain pens cost shs. 10,000. How many similar fountain pens can one buy with shs. 7500?

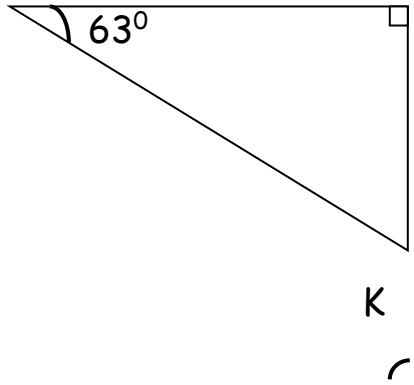
76. Write 0.2424……. as a recurring decimal.

77. Show 9:30 on the clock face below.



78. Convert 108km/hr to m/s.

	79. Solve the inequality; $2x - 2 \geq 6$	80. Expand 438 using values.
	81. Betty bought a dress at shs. 6,000 and sold it at shs. 7200. Calculate percentage profit.	82. Change $1200cm^3$ to litres.

83. Express 1 hour as a ratio to 40 minutes.	84. Find the value of **K** in degrees. 

SECTION B (12 QUESTIONS – 60 MARKS)

85. (a) Match correctly. **(4 mo**

One hundred nineteen	123_4
Twenty eight	119
Two thousand seventy	28
One two three base four	2070

86. The table below shows marks scored by P.6 pupils in a mathematics test.

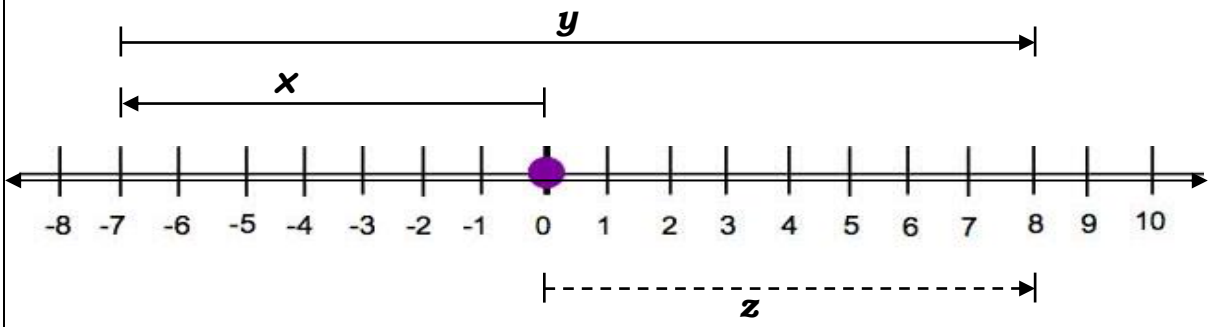
Marks	60	30	40	80	90
Number of pupils	2	1	2	3	2

(a) How many pupils did the test? **(2 marks)**

(b) What is the modal mark? **(1 mark)**

(c) Calculate the mean mark. **(3 marks)**

87. Use the numberline below to answer questions that follow.



(iii) Write the integer represented by each arrow.

(a) x = _____ (b) y = _____ (c) z = _____

(3 marks)

(iv) Write the addition mathematical statement shown above. (2 marks)

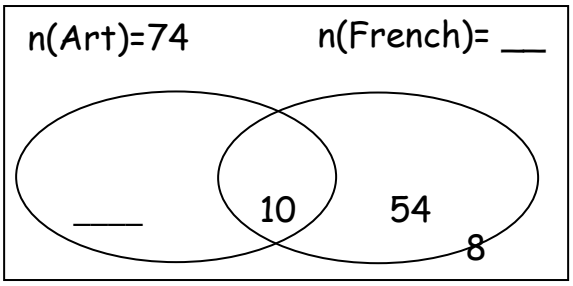
88. Complete the shopping bill below. (4 marks)

Item	Quantity	Unit Cost	Total Cost
Sugar	3kgs	Shs. 3,200	Shs. _____
Soap	_____ bars	Shs. 2,800	Shs. 5,600
Meat	2kgs	Shs. 8,000	Shs. _____
TOTAL EXPENDITURE			Shs. _____

89. (a) With the help of a sharp pencil, ruler, and pair of compasses, construct a triangle PQR where line QR = 6cm, angle PQR = 90^0, and angle QRP = 30^0,	**(4 marks)**	
(b) Measure line PQ _____	**(1 mark)**	
90. The sum of three consecutive whole numbers is 15. (a) Find the actual numbers.	**(4 marks)**	

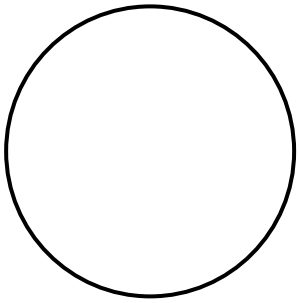
(b) Find their range	**(1 mark)**	
91. (a) Simplify; $\frac{3.6 \times 6.4}{0.024 \times 1.2}$	**(3 marks)**	
(b) Apply BODMAS to work out; $\frac{5}{6} - \frac{3}{4} \div 1\frac{1}{2}$	**(2 marks)**	

92. The venn diagram below shows the number of pupils who attended lessons in different subjects in a week.



a) Complete the above venn diagram.

(2 marks)

	b) How many pupils are in that class altogether?	**(2 marks)**
93.	(a) Amanda has shs. 20,000. She wants to buy a toy that costs shs. 5,000. What fraction of her money will remain after buying the toy?	**(3 marks)**
	(b) What fraction of her money would she use if she bought two toys?	**(2 marks)**
94.	The circle drawn below has a diameter of 14cm. (not drawn on scale) 	

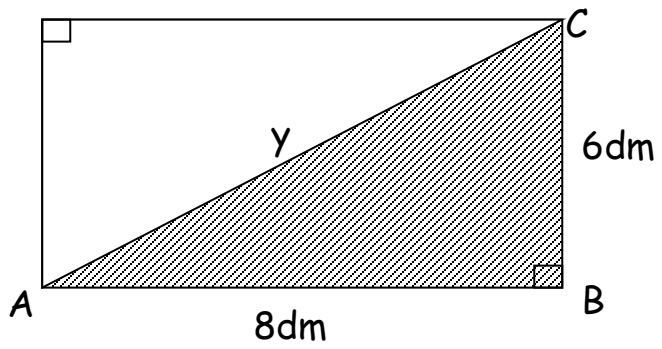
	(a) Find its circumference.	**(3 marks)**
	(b) Calculate the area of the circle above.	**(3 marks)**
95.	(a) Convert 23_{five} to base eight.	**(3 marks)**

(b) Find the unknown base in;

$104_n = 29_{ten}$

(3 marks)

96. Study the geometric shape below and answer the questions that follow.



(d) Find the measurement of line AC.

(3 marks)

(e)Work out the perimeter of the shaded figure.	**(2 marks)**

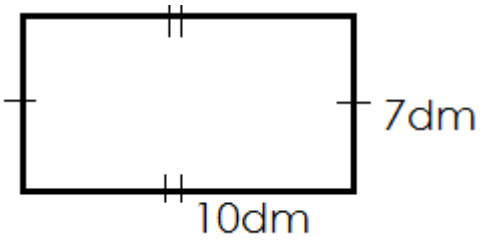
PAPER 10

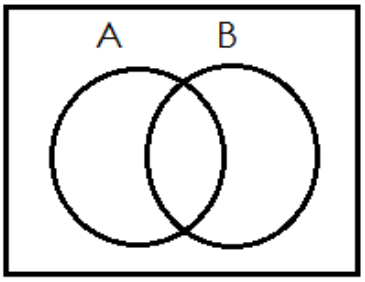
1.	Multiply: $\begin{array}{r} 24 \\ \times\ 2 \\ \hline \\ \hline \end{array}$
2.	Find the square root of **64**.
3.	What is the value of **6** in the number 4 2, **6** 8 9?
4.	Simplify: $^{-}3 + {}^{-}4$

5.	Moses bought a bag at shs. 12,000 and later sold it at shs. 15,000. What was his profit?
6.	Given that set N = { 2, 4, 6 }. Find the number of subsets in set N.
7.	Round off **4,967** to the nearest hundreds.
8.	What number has been expanded? **7000 + 40 + 2**

9.	Using a pair of compasses, ruler and a pencil only, construct an angle of 60° in the space provided below.
10.	Subtract: $\frac{3}{4} - \frac{1}{3}$
11.	Find the least number of books that can be shared among 8 or 6 without leaving a remainder.

12.	Prime factorise **32**.
13.	Solve for **x** $x + x + 4 = 16$

14.	Calculate the area of the figure below:  		
15.	Write **24,378** in words.	16.	Express 4kg as grams.
17.	Mary is 13 years old in the year 2019. How old was she five years ago?	18.	Write **74** in Roman numerals.

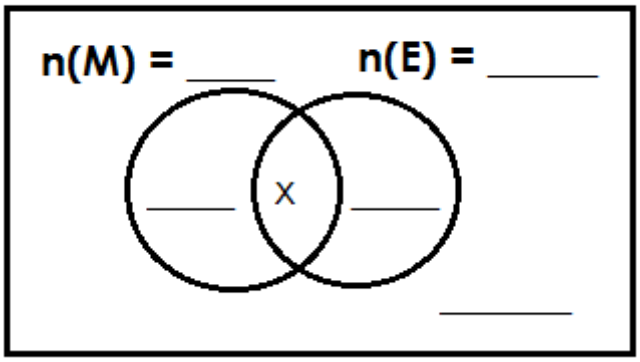
19.	Divide **180** by **3.**	20.	Shade A^1 n B^1 in the venn diagram below. 

SECTION 'B' (60 MARKS)

21. In a class of 80 pupils, 50 like Mathematics (M), 40 like English (E), x pupils like both Mathematics and English while 5 pupils like neither Mathematics nor English.

i) Complete the venn diagram below: ***(3mks)***

n (ε) = _____



ii)	Find the number of pupils who like both subjects. ***(2mks)***
iii)	Find the number of pupils who like only one type of subject. ***(2mks)***
22)	Use the digits **4**, **2**, **8** to answer the questions that follow.
a)	Form the largest three digit number from the above digits. ***(1mk)***

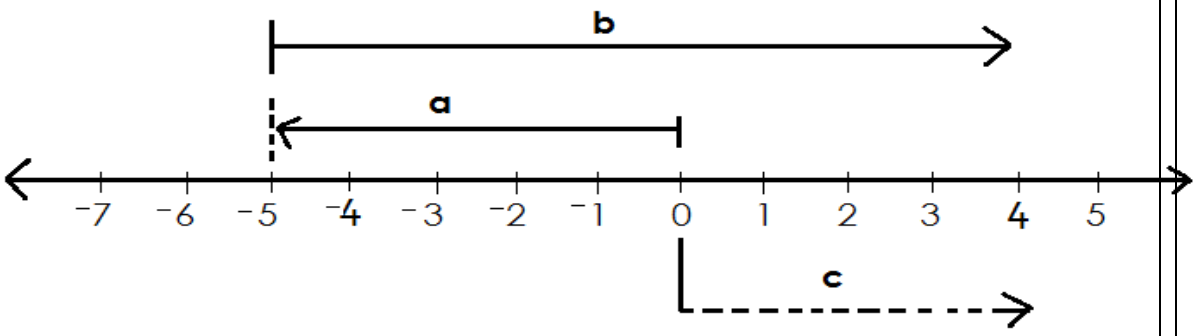
b)	Form the smallest three digit number from the above digits. (1***mk)***
c)	What is the sum of the largest and smallest numbers formed? ***(2mks)***
23	Use the sum table below to answer the questions that follow:

2	a	6
b	5	1
4	3	c

Find the magic sum. ***(2mks)***

(a)

b)	Find the values of boxes marked with letters. ***(1 mark each)***		
	i) a	ii) b	iii) c
24.	Use the number-line below to answer the questions that follow.		



a)	Identify integers marked with letters. ***(1 mk each)***		
	i) **a**	ii) **b**	iii) **c**

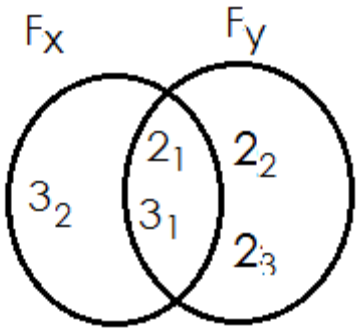
b)	Write a mathematical statement for the above number-line. ***(2mks)***
25.	Re-arrange $\frac{1}{2}$, $\frac{3}{4}$, $\frac{1}{6}$ and $\frac{1}{3}$ in ascending order. ***(5 mks)***
26(a)	**Add**: ***(2 mks)***

Weeks	Days
2	5
+ 4	4

b)	Change $3\frac{1}{2}$ hours to minutes. ***(2mks)***
27.	John went to the market and bought the following items: • 2kg of beans at shs. 1500 per kg. • 3kg of rice at shs. 3,500 a kg. • 2kg of meat at shs. 10,000 per kg. • 5 tomatoes at shs. 1,000.
a)	Calculate his total expenditure. ***(4mks)***

b) If he went with shs. 50,000, what was his change? ***(2mks)***

28) Use the venn diagram below to answer the questions that follow:



(a) Find the value of **x.** ***(2mks)***

b) Find the value of **y.** ***(2mks)***

c) Find the GCF of $\mathbf{F_x}$ and $\mathbf{F_y}$.

(1mk)

29.	a) What is the sum of the value of 4 and 6 in the number **7,6 42?** ***(2mks)***
b)	Expand **2975** using powers of ten. ***(2mks)***
c)	What is the place value of **7** in the number 28.673? ***(1mk)***

30(a)	A car moved a distance of 240km in 3 hours. What was the car's average speed? ***(2mks)***
b)	Sophia drove at an average speed of 70km/hr for 4 hours. What distance did she cover? ***(2mks)***

31.	Derrick scored the following marks in the beginning of term exams. • 80, 70, 60 and 70.		
a)	Calculate his average mark. ***(2mks)***	b)	Find the mode. **(1mk)**
c)	What is the median mark? *(2mks)*		

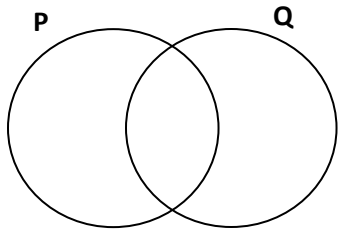
32.	Using a pair of compasses, ruler and a pencil only, construct a square whose side is 6cm. ***(4mks)***

PAPER 11

SECTION A (20 QUESTIONS – 40 MARKS)

1. Add:
$$\begin{array}{r} 341 \\ +\ 125 \\ \hline \end{array}$$

2. On the Venn diagram below, shade set
$P \cap Q$



3. Find the sum of the next two numbers in the sequence.
1, 3, 6, 10, ____, _____

4. Think of a number and multiply it by four. The answer is 28. What is the number?

5. Arrange the following integers starting with the smallest.
-3, 0, +4, -6, 2

6. A farmer bought a goat at shs. 105,000 and sold it at a loss of shs. 11,000. How much did he sell the goat?

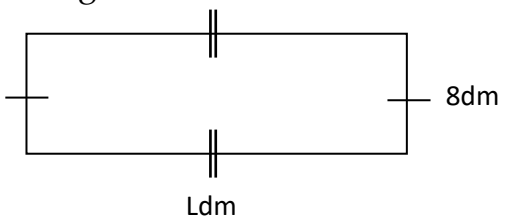
	7. A church service which took 1 hour and 45 minutes ended at 12:00 noon. When did it begin?	8. Find the sum of the value of 6 and the place value of 0 in the number 34106	
	9. How many lines of symmetry has the figure below?	10. Suubi bought 70 dozens of pens from a whole seller. If he was given 849 pens in all, how many pens did he get free of charge?	

11. Given that represents 60 trees.

here these

If each tree was bought by a timber dealer at shs. 20,000, how much money did Mr. Musoke receive?

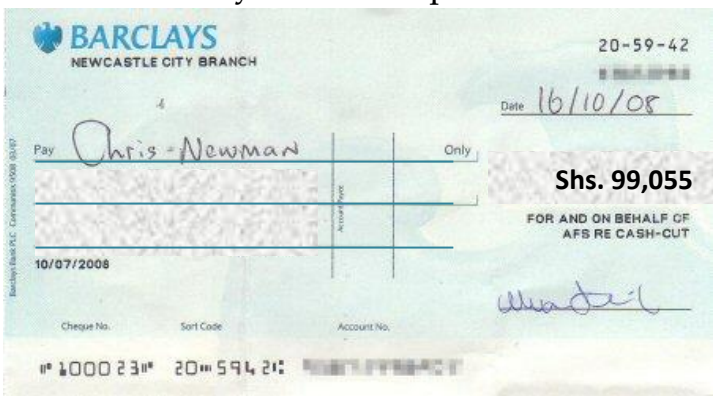
12. The perimeter of a rectangle is 40dm. If its width is 8dm, work out its length.



13. Change $33\frac{1}{3}$ to an improper fraction.

14. Muko Dairy Corporation produces 456995 litres a day and Jesa farm produces 979995 litres of milk a day. How much milk do they produce altogether in one day?

15. Write the amount of money on the cheque in words.



16. Lydia collected 80 litres of milk from her farm. How many half litre packets of milk did she collect?

17. Nantamu obtained the following marks in a series of tests;
15, 10, 25, 15 and 20. Calculate her range of marks.

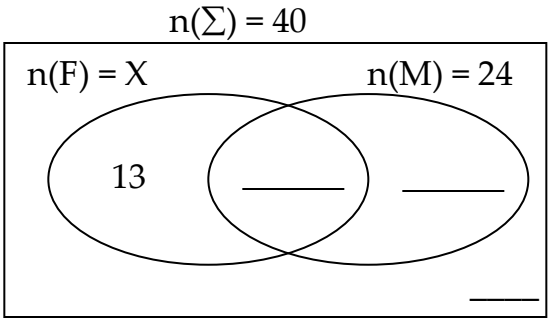
18. Find the square root of 196.

19. Rose is 7 years old. Write her age into base five.	20. A plastic Coca cola bottle of soda of 500ml costs shs. 2000. What is the cost of every 2ml of that soda?

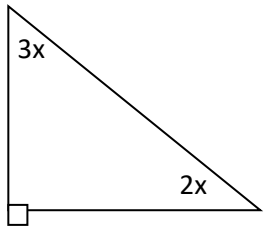
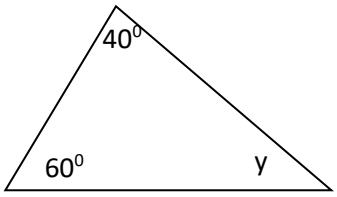
SECTION B (12 QUESTIONS – 60 MARKS)

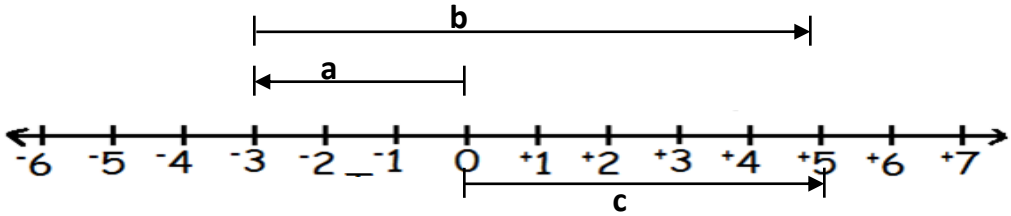
21. In a class of 40 learners, **X** like Fish (**F**), 24 like meat (**M**) and **y** learners do not like any of the two delicacies. 5 learners like both Fish and Meat. **(3**

(a) Complete the above venn diagram

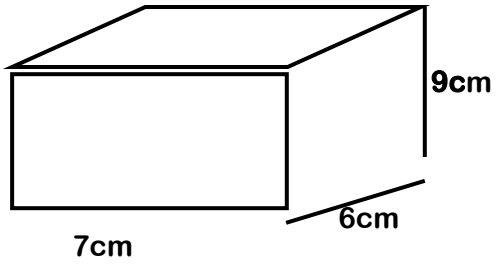


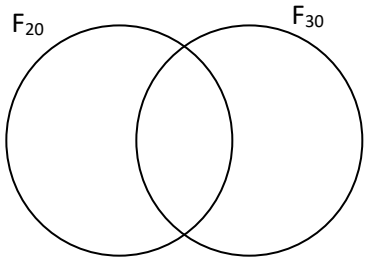
(b) Find the value of y. **(2**

	(c) What is the probability that when a leaner is picked from those 40 learners, that leaner likes only one delicacy?	**(2 marks)**
	22. (a) Kamya went to the market and bought 10 goats for shs. 650,000 and 5 sheep for shs. 600,000. Which of the two types of animals was more expensive?	**(3 marks)**
	23. Study the diagrams below and use them to find the values of the unknown. a)  b)  	**(4 marks)**

	24. In a class of 240 pupils, $\frac{1}{4}$ of them are 9 years, $\frac{1}{3}$ are 10 yaers and $\frac{5}{12}$ are above 12 years. (c) How many pupils are 10 years old?	**(2 marks)**
	(d) What is the difference between the number of pupils who are above 12 years and 10 years?	**(4 marks)**
	25. Study the number line and use it to answer questions.  (v) Write down the integers represented by letters on the above number line	**(3 marks)**

a = _____ c = _____ b = _____		
(vi) Write down the mathematical sentence.	**(2 marks)**	
26. (a) Today is Monday, what day of the week will it be after 94 days?	**(2 marks)**	
(b) How many weekend days shall we have had in the period stated in 26(**a**) above?	**(2 mark)**	

	27. (a) Using a ruler, pencil and a pair of compasses only, construct an isosceles triangle ABC such that AC = BC = 4cm and AB = 5.5cm.	**(4 marks)**
	b) Measure angle ABC	**(1 mark)**
	28. The figure below is of a cuboid.  (a) How many vertices does the cuboid have?	**(2 marks)**

	(b) Work out the total surface area of the cuboid above.	**(3 marks)**
	(c) Work out the volume of the shape.	**(2 marks)**
	29. Ruth was asked to prime factorise 20 and 30. (a) Represent her answers in a Venn diagram.  	**(3 marks)**
	(b) From the Venn diagram, find the GCF of 20 and 30	**(2 marks)**

30. (a) Given that x = 6, y = 4 and z = 3. Work out the value of **(2 marks)**

(i) 3x + z

(iii) 4(x + y)

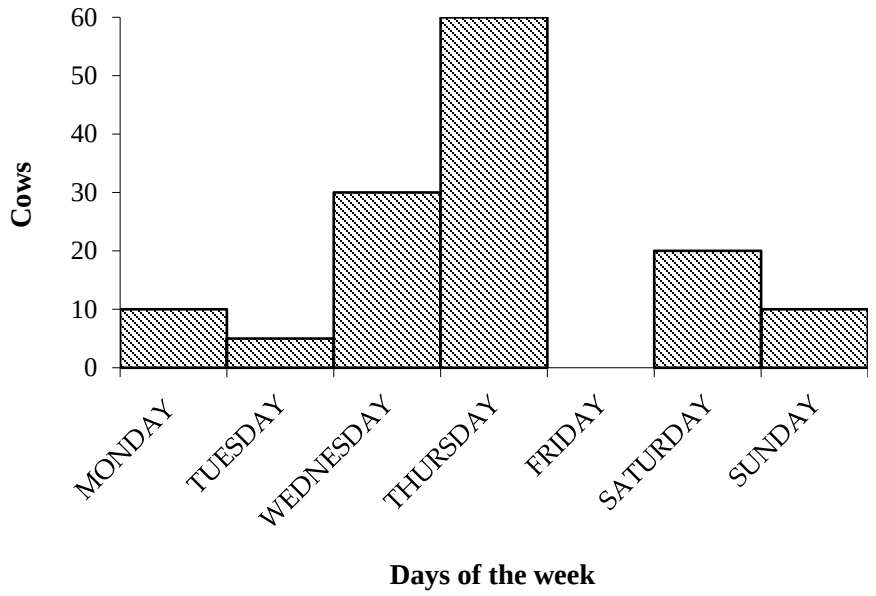
(b) Work out $\frac{1}{3} \times \frac{1}{2}$ using a diagram. **(2 marks)**

31. Below is Mr. Okanya's shopping bill. Use it to answer the questions that follow.

Item	**Quantity**	**Unit cost**	**Total**
Soap	3 pairs	Shs. _____	Shs. 2,400
Sugar	2kgs	Shs. _____	Shs. 6,400
Omo	_____ sachets	Shs. 400	Shs. 1,600
Bread	3 loaves	Shs. _____	Shs. _____
Total Expenditure			**Shs. 17,000**

	(a) Fill in to complete the table.	**(4 marks)**
	(b) If he had gone with shs. 50,000. Calculate his balance.	**(1 mark)**

32. The graph below shows the death rate of cows on a farm that had 360 cows.



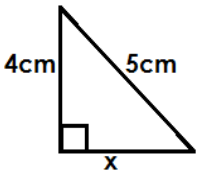
(a) Which day had the highest death rate?

(b) Which day did not have any record of death?

(c) Work out the total number of cows that remained on the farm that week.

PAPER 12

1.	Add: $\begin{array}{r} 4\ 6\ 8 \\ +\ 2\ 1\ 3 \\ \hline \\ \hline \end{array}$	2.	Express **46** in Roman numerals.
3.	Given that W = { 3, 4, 5 }. Find the number of subsets in set W.	4.	Work out: $\frac{1}{4} \div \frac{1}{2}$
5.	Write **798,432** in words.	6.	Find the square root of **36**.
7.	Given that **a = 2, b = 4,** find the value of **ab**.		

8.	Express 3 : 4 as a fraction.		
9.	Mary bought a television set at shs. 350,000 and sold it at shs. 375,000. Calculate her profit.	10.	Find the value of side marked with letter **x.** 
11.	A mathematics lesson started at 8:00am. If the lesson lasted for 45 minutes, what time did the lesson end?		

12.	Find the next number in the sequence. 1, 4, 9, 16, 25, _____	13.	Multiply: 2 4 x 8 _____ _____
14.	What number has been prime factorized? { 2_1, 2_2, 2_3, 3_1, }	15.	Add: $\frac{3}{4} + \frac{1}{6}$
16.	Express: $0.33\overline{3}$ as a common fraction		

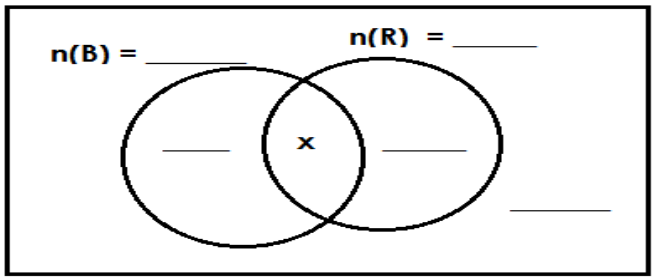
17.	Solve for **y**. 2y – 4 = 6.	18.	Work out: 8 – 9 + 2
19.	Find the median of **3, 2, 8, 11** and **13**.	20.	Express $\frac{1}{2}$ as a decimal.

SECTION 'B' (60 MARKS)

21. In a village of 90 farmers, 60 grow beans (**B**), 40 grow rice (**R**), **x** farmers grow both beans and rice while 5 farmers grow neither beans nor rice.

a) Complete the venn diagram below. ***(3mks)***

n(ε) = _____



b) Find the number of farmers who grow both beans and rice.

(2mks)

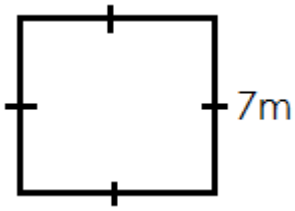
c) Find the number of farmers who grow beans only. ***(1mk)***

22. Simplify: ***(3mks)***

$$\frac{0.4 \ x \ 0.08}{0.32}$$

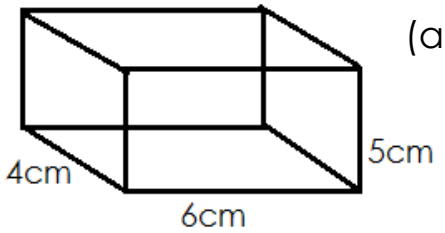
b) **Round off *64.256*** to the nearest hundredths. ***(2mks)***

	23.	The sum of **<u>three</u>** consecutive odd numbers is **<u>27</u>**. Find the numbers. ***(4mks)***		
	24a)	Work out: $\frac{1}{2} - \frac{2}{3} + \frac{3}{7}$ ***(3mks)***	b)	Find the next two equivalent fractions for $\frac{1}{5}$. ***(2mks)***

	25a)	The perimeter of a rectangle is 20cm. If its length is 6cm, find its area. (***3mks)***
	b)	Find the perimeter of the figure below. ***(2mks)*** 

	26.	Peter went to the market and bought the following items: • 2kg of beans at shs. 4000 per kg, • 3kg of beans at shs. 1,200 per kg, • 6 tomatoes at shs. 2,000, • 2 litres of cooking oil at shs. 5,000 a litre.		
	(a)	Calculate his total expenditure. ***(4mks)***	b)	If he went with shs. 50,000, how much was his change? ***(2mks)***

27. Use the figure below to answer the questions that follow.



(a) Calculate the volume of the cuboid. ***(2mks)***

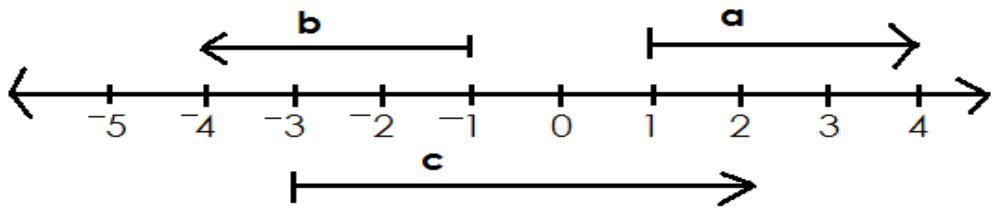
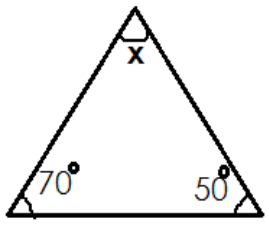
(b) Find the number of;

(i) Faces ***(1mk)***

(ii) Vertices ***(1mk)***

(iii) Edges ***(1mk)***

	28.	Find the product of the value of 4 and the value of 3 in the number **5,463.** **(3mks)**
	b)	Expand **4978** using powers of ten. ***(2mks)***
	29.	Arrange the following integers in ascending order. ***(2mks)*** $^{-}2$, 0, $^{+}6$, $^{-}5$, $^{+}3$ _____

	(b)	Write the integers shown on the numberline below: ***(1 mark @)***  (i) a : _____ (ii) b : _____ (iii) c : _____
	30.	Find the value of angle marked with letter **x.** ***(2mks)*** 
	b)	What is the complement of 44°? ***(2mks)***
	c)	Using a pair of compasses, ruler and a pencil only, construct an angle of 60° in the space provided below. ***(2mks)***

31.a)	Find the reciprocal of $\frac{2}{3}$. ***(2mks)***	)	Express **1:5** as a percentage. ***(2mks)***
c)	Work out: $\frac{2}{5} \times \frac{1}{4}$ ***(1mk)***		
32.	Using a pair of compasses, rule and a pencil only, construct a regular hexagon in a circle of radius 3cm. ***(4mks)***		

PAPER 13

SECTION A (20 QUESTIONS – 40 MARKS)

97. Multiply: $\begin{array}{r} 1\ 0\ 3 \\ \times\quad 2 \\ \hline \\ \hline \end{array}$	98. Given that; set A = { a , b , c , d , e ,f , g}. Find n(A)
99. Simplify: 5g + 8y – 3g – 5y.	**100.** Find the square root of $\frac{225}{100}$
101. Work out: $\frac{1}{4} - \frac{1}{8} + \frac{1}{2}$	102. Round off 36.495 to the nearest tenths.

	103. Magara scored the following marks in tests that marked out of 50. 15 , 10 . 15 , 30 , 35 , 40. What is his median mark?	104. The area of a rectangular garden is $40m^2$. Musa walked thrice around the same garden. What distance did he cover if the length is 8m?
	105. Add: Hours minutes 3 4 6 + 2 2 4 _____	106. Using a ruler, a sharp pencil and pair of compasses only, construct an angle of 120^0 in the space below.

107. Find the next number in the sequence below.
22 , 15 , 9 , 4 , 0 , _____

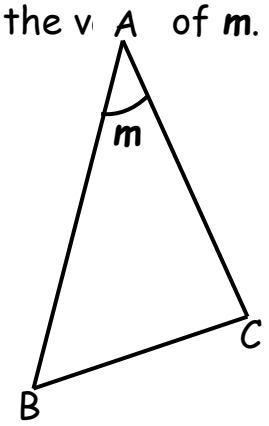
108. Subtract; $^{-}9 - {}^{-}10$

109. Mukose was given shs.25000 to go to the shop and buy the following items.
2 geometry sets at shs.5000 a set.

$1\frac{1}{2}$ kgs of meat at shs.8000 a kilo.

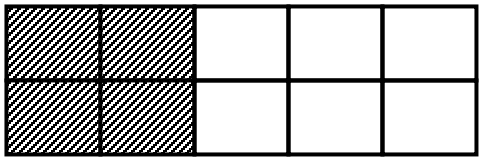
How much change did he get?

110. The figure below shows triangle ABC such that Angle B = 75^0, angle C = 45^0. Find the value of **m**.



111. Set K has 5 elements. How many proper subsets can be formed from set K?

112. What percentage of the figure below is Unshaded?

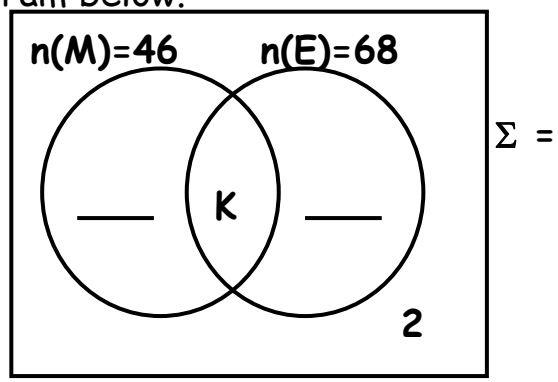


113. Barigye's daughter ate $\frac{1}{3}$ of the cake on Monday and $\frac{1}{4}$ of the cake on Thursday. What fraction did she eat in two days?

114. If △ represents 19 triangles, draw the pictures to represent 95 triangles.

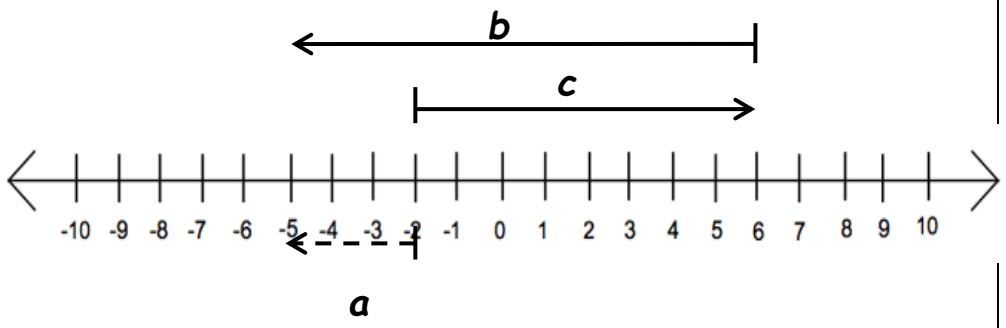
115. The bus covered a distance of 120km at a speed of 40km/hr. How long did the bus take to cover the distance?	116. Change 341_{five} to base ten.

SECTION B (12 QUESTIONS – 60 MARKS)

117. In a class of 100 pupils , 46 like Music (M) , 68 like English (E) and 2 like neither of the two subjects. If K pupils like both subjects, (d) Represent the above information on the Venn diagram below.  	**(3 marks)**

	(e) How many pupils enjoy both subjects?	**(2 marks)**
	118. a) Simplify: $1 - \frac{4}{8}$	**(2 marks)**
	(b) In a school of 3500 pupils, $\frac{3}{5}$ of them are in the nursery section and the rest are in the primary section. How many pupils are in the primary section?	**(3 marks)**

119. Use the number line below to answer the questions that follow.



(a) Write the integers represented by each arrow.

(i) a = _____

(ii) b = _____

(iii) c = _____

(1 markmark)

(b) Write the mathematical statement shown on the number line above.

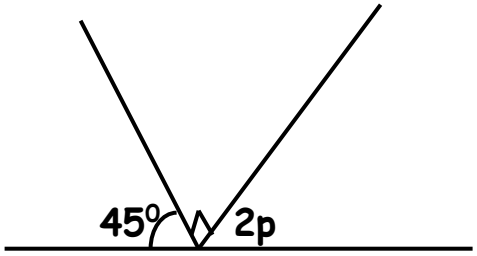
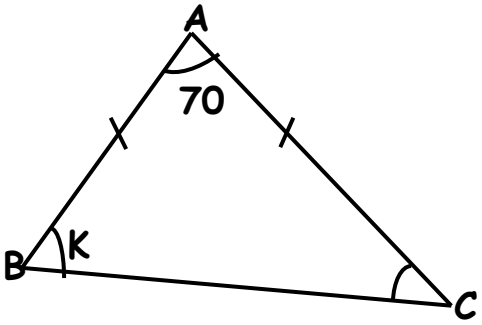
(2 marks)

120. Musa and Peter set alarms in their phones to wake them up. Musa's phone made an alarm every after 20 minutes and Peter's phone made an alarm every after 30 minutes. If they made alarms together at 4:30a.m, at what time did their watches make alarms together again? **(5 marks)**

121. The table below shows the number of children who were immunised at Mbale Hospital against measles.

Days	**Mon**	**Tue**	**Wed**	**Thur**	**Fri**	**Sat**	**Sun**
No.of children	50	30	70	150	60	90	110

(a) On which day was the highest number of children immunised? **(1 mark)**

	(b) How many more children were immunised on Saturday than Wednesday?	**(2 marks)**
	(c) Calculate the average number of children immunised on a daily basis.	**(2 marks)**
	122. Find the value of the unknown angles in the figures below. (a)  (b)  	**(3 marks)** **2 marks)**

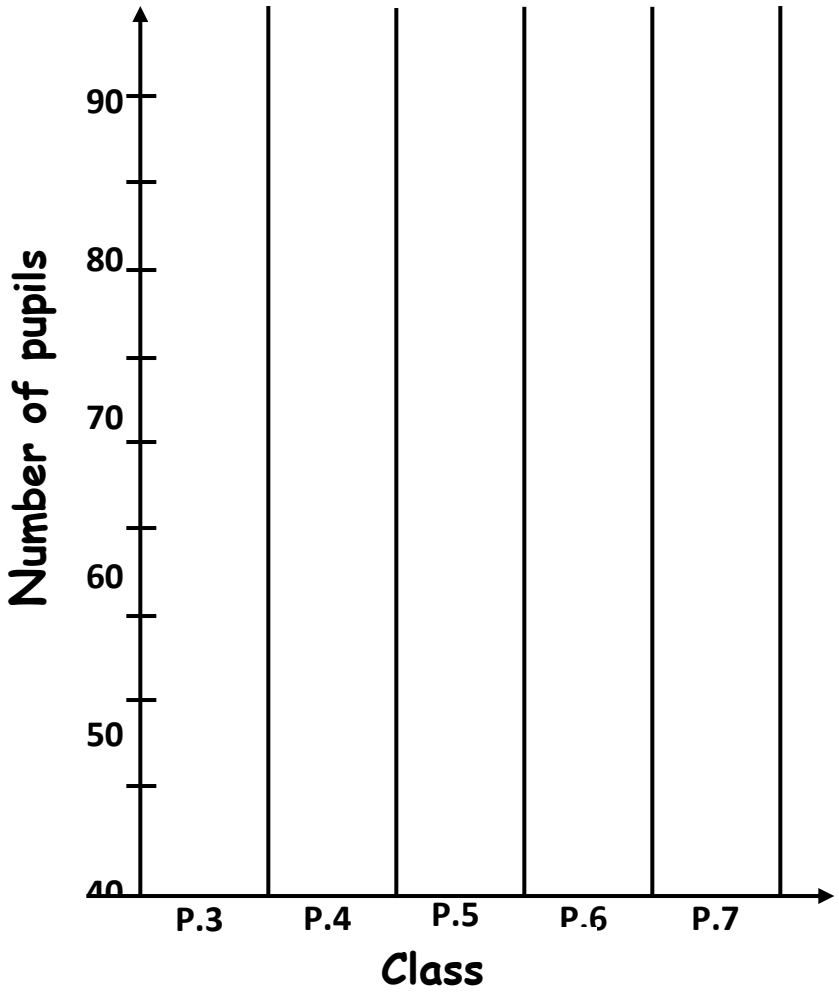
	123. (a) Solve: 2 (16 + h) =108	**(2 marks)**
	(b) Matte is 4 years older than Musse. If their total age is 102 years. How old is Matte?	**(3 marks)**
	124. Use a pair of compasses, ruler and sharp pencil only to construct a triangle GEF in which EF = 7cm , angle GEF = 30^0 and angle EFG = 128^0.	**(4 marks)**

	(b) measure $\overline{GF}$	**(1 mark)**
	(c) Measure $\angle EGF$.	**(1 mark)**
	125. Find the product of the value of 6 and the place value of 9 in 846392.	**(2 marks)**
	(b) Expand 1634.68 using exponents.	**(1 mark)**

	(c) Write 803008 in words.	**(1 mark)**
	126. Kabanda went to DFCU bank and withdrew a bundle of bank notes numbered from GH 0012349 to GH 0012450. (a) How many notes did he withdraw from the bank?	**(2 marks)**
	(b) If he withdrew fifty thousand shilling notes, how much money did he withdraw?	**(3 marks)**

127. The table below shows the number of children at Katinti Primary school. Use the table to represent the information on a bar graph. **(5 marks)**

Class	P.3	P.4	P.5	P.6	P.7
Number of pupils	45	50	80	70	50



128. (a) The sum of three consecutive odd numbers is 135. What are the numbers?

(c) Find their range.