KAMPALA CITY EXAMINATIONS BOARD

QUALITY CHECK TWO

2025

MATHEMATICS
Time Allowed: 2 hours 30minutes

Random No.						**Personal No.**		

Candidates' name: .....

Candidates' signature: .....

District ID No. | | | | |

Read the following instructions carefully:

1. Do not write your **school** or **district name** anywhere on this paper.
2. This paper has **two** sections: **A** and **B**. Section **A** has **20** questions and section **B** has **12** questions. The paper has **16 printed pages**.
3. Answer **all** the questions. All the working for both sections **A** and **B** must be shown in the spaces provided.
4. **All** the working must be done using a **blue** or **black** ball point pen or ink. Any work done in pencil other than graphs and diagrams will **not** be marked.
5. **No calculators** are allowed in Examination room.
6. Unnecessary **changes** in your work and handwriting that cannot be read easily may lead to **loss of marks**.
7. Do not fill anything in the table indicated: **"FOR EXAMINERS' USE ONLY"** and in the boxes inside the question paper.

Official line: **CEO** 0785119093 @ city exams

FOR EXAMINERS' USE ONLY		
QN NO.	**MARKS**	**EXR'S NO.**
1-5		
6-10		
11-15		
31-15		
16-20		
21-24		
25-26		
27-28		
29-30		
31-32		
TOTAL		

SECTION: A 40 MARKS

Question **1** to **20** Carry **two** marks each

1. Workout: $10 \div 5$.

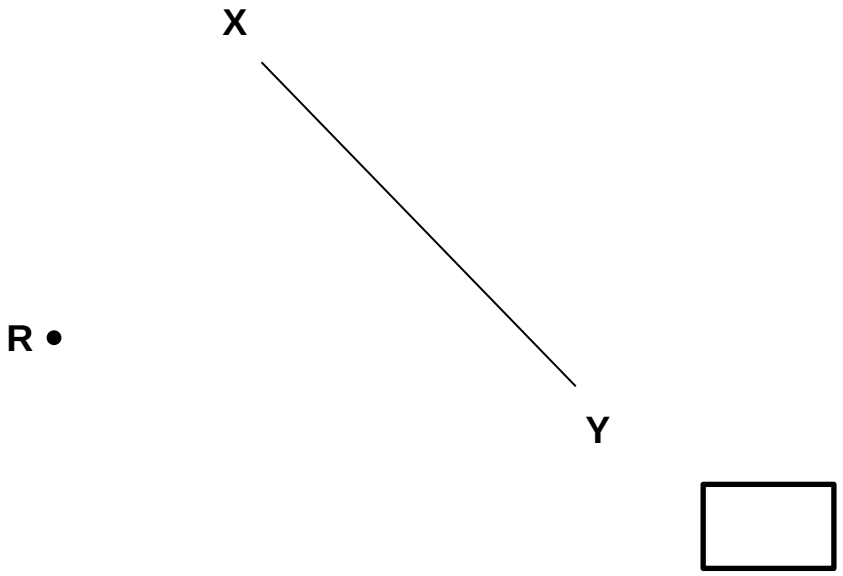
2. Simplify: $(^{-}4x+6xy) - (2x+xy)$.

3. Find the reciprocal of $5\frac{3}{5}$.

4. Samuel got a loan of sh.240,000 from centenary bank at a simple interest rate of 10% per annum. He paid an interest of sh.12,000 on the loan. How long was his loan?

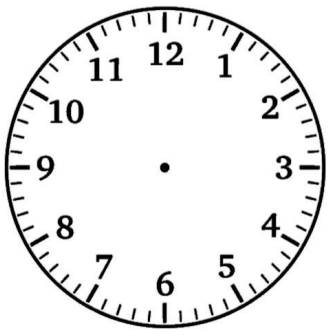
Turn Over

5. Using a ruler and a pair of compasses only, construct a line through point **R** parallel to line **XY**



6. The LCM of d and 12 is 36 and their HCF is 6. Find the value of d.

7. On the clock face below, indicate a quarter to noon.



Turn Over

8. Express 0.75 in scientific notation.

9. Workout: $\frac{2}{5}+\frac{1}{4}$.

10. Given that set **B** has 8 subsets, how many proper subsets has set **B**?

Turn Over

11. Find the square root of 121.

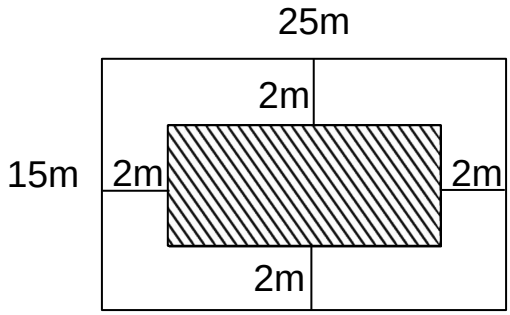
12. Solve for y. $103_y = 67_{ten}$

13. In a school of 200 pupils, the ratio of boys to girls is 1:4 respectively. How many boys are in the school?

Turn Over

14. A box contains 15 pens. 4 are blue, 3 black and the rest red. A pen is picked at random from the box. What is the probability that it is a red pen?

15. Opio laid a tarpaulin inside a rectangular room measuring 25m long and 15m wide. The tarpaulin skipped 2m from all sides of the room as shown below. Study it carefully and answer the question that follow. Calculate the area of the tarpaulin.



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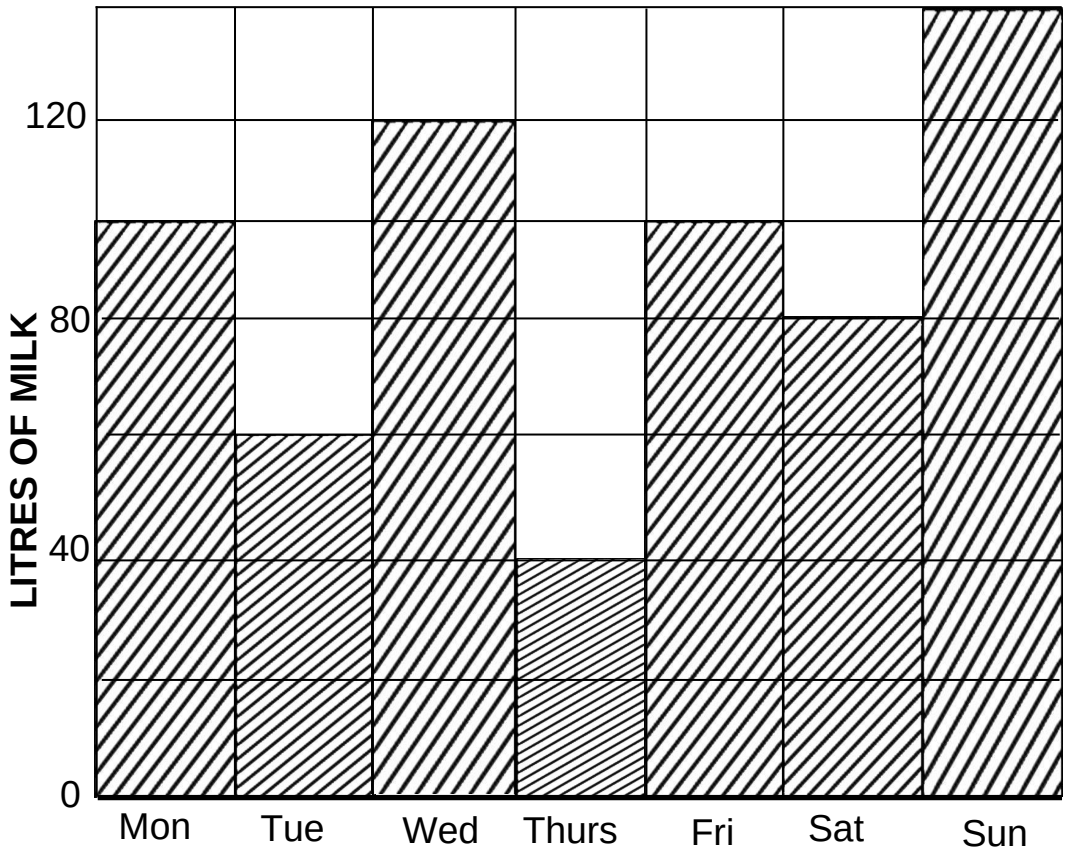
Turn Over

16. The graph below shows the amount of milk sold at Amokos' dairy farm in a week. Study it carefully and answer the questions that follow.

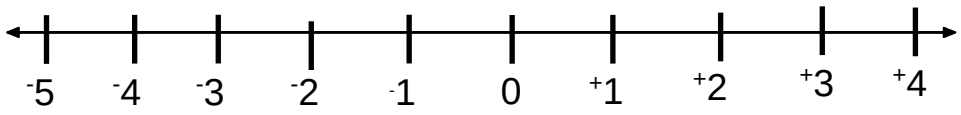


Workout the sum of the milk sold on Tuesday and Friday.

17. Find the value of g. $4g - 3 = 7$ (finite 9)

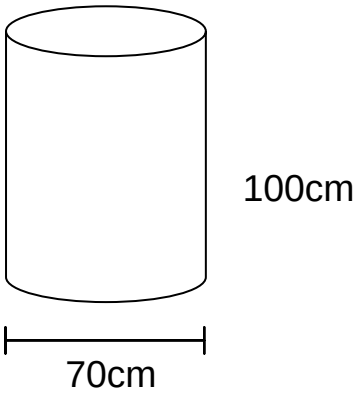
Turn Over

18. Workout $^{-}4 - {}^{-}4$ on the number line below.



19. Workout (27 ÷ 10) + (18 ÷ 10) using distributive property..

20. Find the capacity of the cylinder below. (Use $\pi = \frac{22}{7}$)

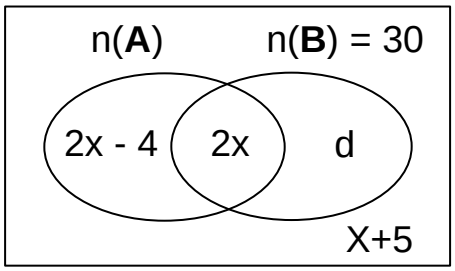


SECTION B: 60 MARKS

Answer **all** the questions in this section

Marks for each question are indicated in the brackets

21. The Venn diagram below represents the number of pupils who like letter **A** , **B** and some who like neither of the two letters. Study it carefully and answer the questions that follow.



(a) If n(AUB)' = n(A - B), find the value of **X**. (*02 Marks*)

(b) How many pupils are in the class? (*03 Marks*)

Turn Over

22. The table below represents how John spends his monthly salary. Study it carefully and answer the questions that follow.

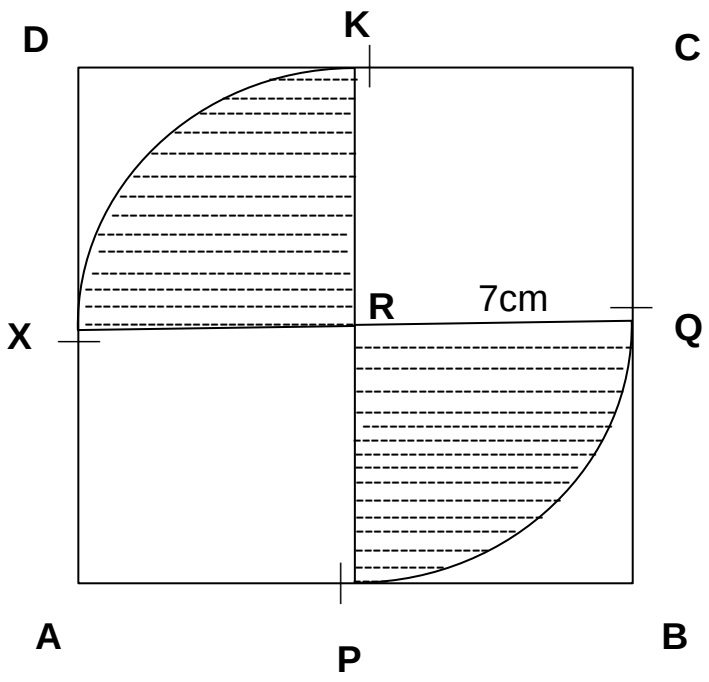
Transport	Others	Clothes	Feeding
20%	m	30%	15%

(a) Find the value of m. (*02 Marks*)

(b) Use the information above to draw an accurate pie-chart of radius 4.3cm. (*04 marks*)

Turn Over

23. In the figure below, **ABCD** is a square. **PQR** and **XRK** are quadrants of the same size. Study it carefully and answer the questions that follow.



(a) Find the area of the unshaded part. (*04 Marks*)

(b) Change 3.5metres to centimeters. (*02 Marks*)

Turn Over

24. Amooti left home at 9:30am heading to Hoima at an average speed of 60km/h for 2hours. He rested at Hoima for half an hour and then proceeded to kagadi at an average speed of 30km/h for 2hours.

(a) Calculate the distance he covered from home to Hoima. (*02 Marks*)

(b) Calculate his average speed for the whole journey. (*03 Marks*)

25. Simplify:

(a) $b^5 \div b^6$. (*02 Marks*)

(b) $2^{m+1} \times 3^n = 72$. (*03 Marks*)

Turn Over

26. A farmer planted 25 trees round his rectangular garden at an interval of 10metres.

(a) Calculate the perimeter of the garden. (*02 Marks*)

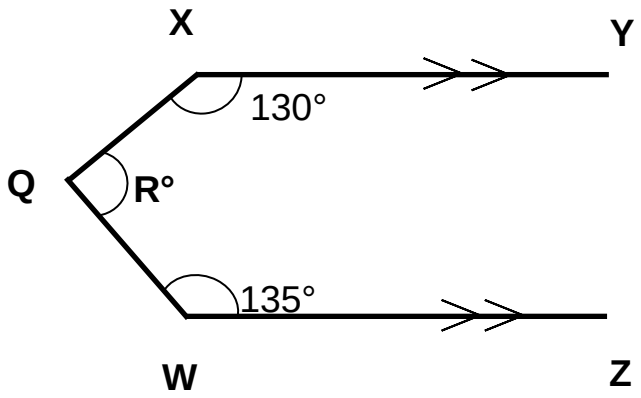
(b) Omolo wrote three digit number using the digits 5, 2 and 3. Write down all the possible three digit numbers less than 400 that Omolo wrote. (*02 Marks*)

27. The interior angle of a regular polygon is 90° more than its exterior angle.

(a) How many sides has the figure? (*02 Marks*)

Turn Over

(b) In the figure below, **XY** is parallel to **WZ**, angle **QXY** = 130° and angle **ZWQ** = 135°. Calculate the size of angle **R**. (*04 Marks*)



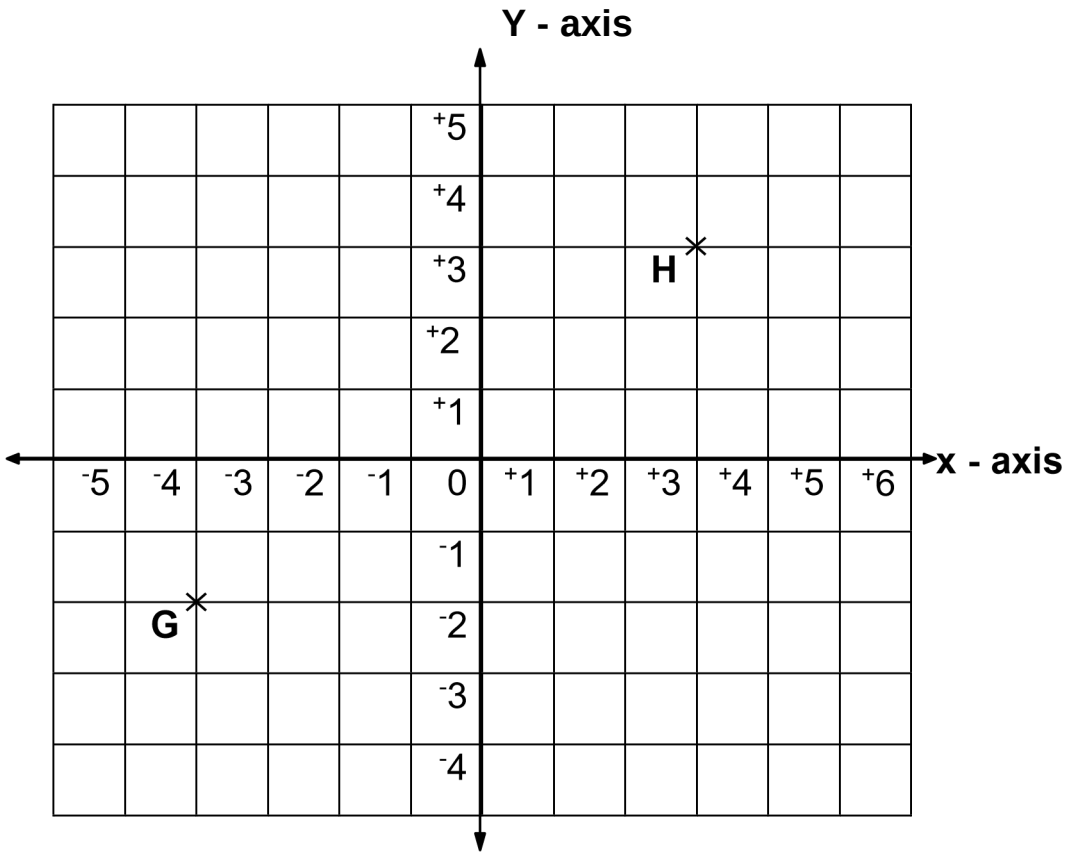
28. Three boys are aged (3m + 4), (4m + 2) and (5m – 2) years. Their total age is 40 years.

(a) Find the value of m. (*03 Marks*)

(b) How old is the youngest boy? (*03 Marks*)

Turn Over

29. Study the graph below and use it to answer the questions that follow.



(a) Plot the points, **M**($^{+}4$, $^{+}2$), **K**(0, $^{-}2$) (*02 Marks*)

(b) Write the co-ordinates of points; (*01 Mark each*)

(i) **H**

(ii) **G**

30. Simplify: $\frac{0.75 - 0.05}{0.40 + 0.30}$. (*04 marks*)

Turn Over

31. (a) Using a ruler, a pencil and a pair of compasses only, construct a triangle **XYZ** where angle **X** = 75°, angle **Y** = 45° and **XY** = 6cm (*04 Marks*)

(b) Measure the length of **YZ**. (*01 Mark*)

32. Mr. Okidi went to the market and bought the following items.

2 kg of meat at sh.16,000 per kg.
500grames of salt sh.5,000 each kg.
12 Jackfruits at sh.6,000 for every 3 Jackfruits.

Calculate Mr. Okidis' total expenditure. (*05 Marks*)

THE END

Turn Over