NEXUS EXAMINATIONS SERVICES

PRE-MOCK EXAMINATION SET II 2025
PRIMARY SEVEN
MATHEMATICS

Time allowed: 2hours 30 minutes

	Random No.						Personal No.		
Index No.									

Candidate's name: .....

Candidate's signature: .....

District No.

Read the following instructions carefully:

1. This paper has two sections: **A** and **B.** Section **A** has **20** questions and Section **B** has **12** questions.
2. Answer **all** questions. **All** the working for both sections **A** and **B** must be shown in the spaces provided.
3. **All** 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.
4. **No calculators** are allowed in the examination room.
5. Unnecessary **changes** in your work and handwriting that cannot easily be read may lead to loss of marks.
6. Do not fill anything in the table indicated: "**For Examiners' Use only**" and boxes.

FOR EXAMINERS' USE ONLY		
Qn. No.	**MARKS**	**EXR'S NO**
1-5		
6-10		
11-15		
21-22		
23-24		
25-26		
27-28		
29-30		
31-32		
TOTAL		

SECTION A (40 MARKS)

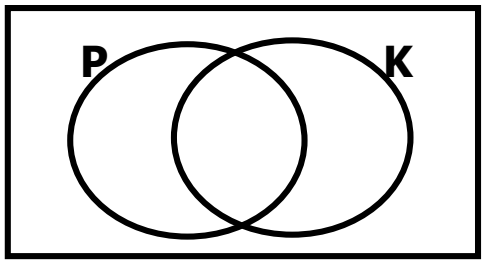
Attempt **all** questions in this section
Questions **1 – 20** carry **2** marks each

1. Workout: $\frac{7}{13} - \frac{3}{13}$

2. Express 503,001 in words.

3. Simplify: 6h – 2(5+3h)

4. Shade the complement of P∩ K in the Venn diagram below.

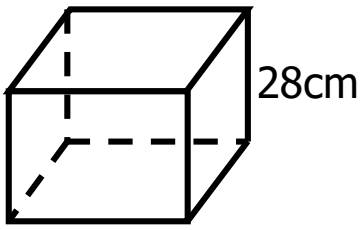


5. Divide 63,630 by 7.

6. Find the smallest number of books that can be shared among 18 boys or 24 girls leaving only 5 books as a remainder.

7. Round off 346.98 to the nearest tenths.

8. The figure below represents a rectangular tank whose volume is 16,800cm^3. Work out its base area.

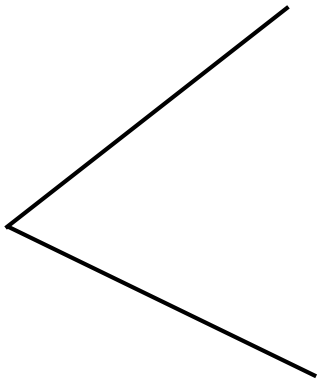


9. It takes Mugaya 45minutes to walk from home to market. Given that he used a speed of 16 kilometres per hour. Calculate the distance between home and market.

10. A businessman deposited sh. 130,000 in a bank that offers a simple interest rate of 12% per month for 5 months. Calculate his simple interest.

11. Solve: 4p = 5(finite 7)

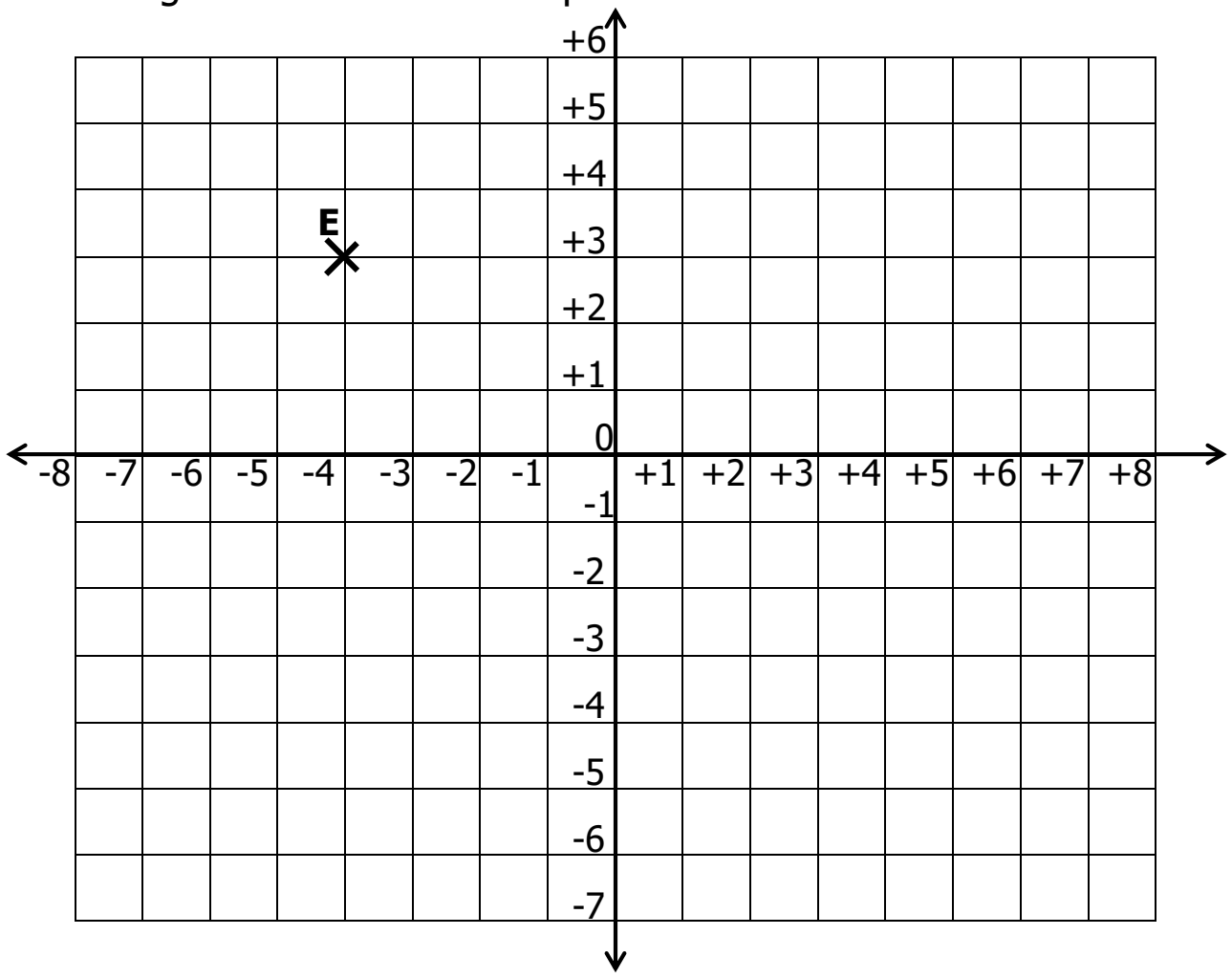
12. Using a ruler and a pair of compasses only, bisect the reflex angle in the diagram below.



13. What number has been expanded to get;
$(6X10^{4}) + (4X10^{2}) + (5X10^{-2})$?

14. Find the next number in the sequence:
80, 63, 50, 39, _____

15. Use the grid below to answer questions that follow.

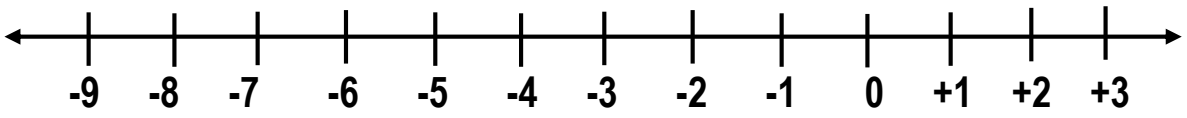


a). Name the coordinate point marked E

b). Plot the point R(+5, 0) on the grid above.

16. A straight road is 860metres long. An engineer fixed electric poles at intervals of 20 metres on one side of the road. Calculate the number of poles needed.

17. Show -7$-^{-}$ 5 on the number line below.



18. Solve the equation: $\frac{2}{n}$ + 4 =8.

19. Express 6,750 in standard form.

20. Ausi bought three rabbits at sh. 28,500 each. At what price must he sell all the rabbits to get a profit of sh. 17,100?

SECTION B (6 Marks)

Attempt **all** questions in this section
Marks for each question are indicated in **brackets**

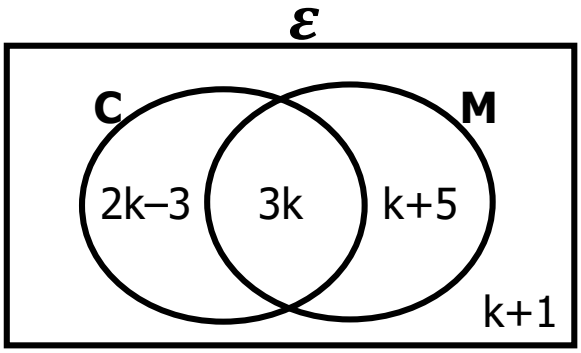
21. A farmer sells 69 litres of milk in three days.Given that he sells 3 litres more than the previous day and each litre costs sh. 1,800.
a). Calculate the number of litres of milk he sells on the third day. (3 marks)

b). Find the amount of money the farmer earns on the first day. (2 marks)

22a) Express 0.4333… as a simplified vulgar fraction. (3 marks)

b) Simplify: $\frac{1 - 0.25}{0.03 \; X \; 0.5}$ (3 marks)

23. The Venn diagram below shows the number of farmers in a certain village who grow Cassava (C), Millet (M) and other food crops. Use it to answer the questions that follow.



a) Given that 26 farmers don't grow Cassava, find the value of k.

(2 marks)

b) How many farmers make up the entire village? (2 marks)

c) If a farmer is picked at random, find the probability that he/she grows other food crops. (1 mark)

24a) Change 301_{five} into a decimal base. (2 marks)

b) The sum of numbers in each row, column or diagonal in the table below is the same. Complete the table. (4 marks)

14	11	……	16
17	……	10	5
……	13	9	……
7	8	12	19

25. Hussein went shopping and bought the following items.

- 5 dozen of pens at sh. 6,000 per dozen.
- $2\frac{1}{2}$kg of sugar at sh. 3,000 per kg.
- 3 apples at sh. 1,600 for every 2 apples.
- 400g of salt at sh. 700.

Calculate Hussein's total expenditure. (4 marks)

26. Using a ruler and a pair of compasses only;

a) construct a triangle PAC such that angle PAC = 105^0, line AC = 5cm, and line PA= 7.5cm. (4 marks)

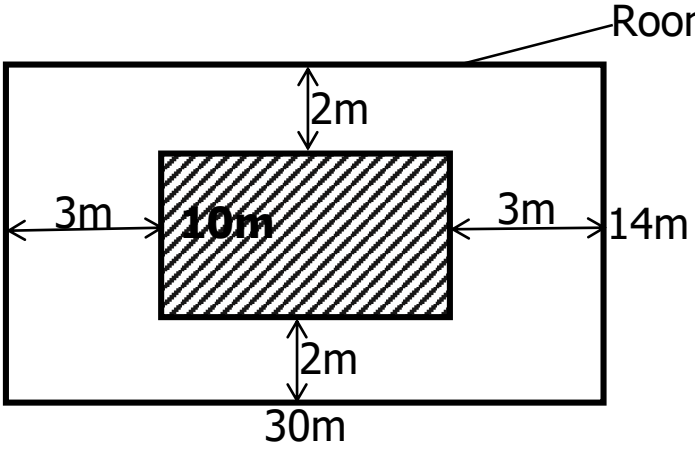
b)Drop a perpendicular from P to meet line AC at k. (1 mark)

27. Namwase can sweep a school compound alone in 12 hours and Mwase can sweep the same compound alone in 6 hours.
a). How long will they take to sweep the compound if they work together? (4 marks)

b). Given that they sweep at a rate of 2 metres per minute, calculate the size of the school compound. (2 marks)

28. A taxi travelled at a speed of 60km/h from town A to town B. It then returned through the same route at a speed of 40km/h. Given that the whole journey took 5hours. Calculate the distance between town A and town B. (4 marks)

29. The figure below represents a carpet laid in a rectangular room. The area covered by the carpet is shaded. Study it and then answer questions that follow.

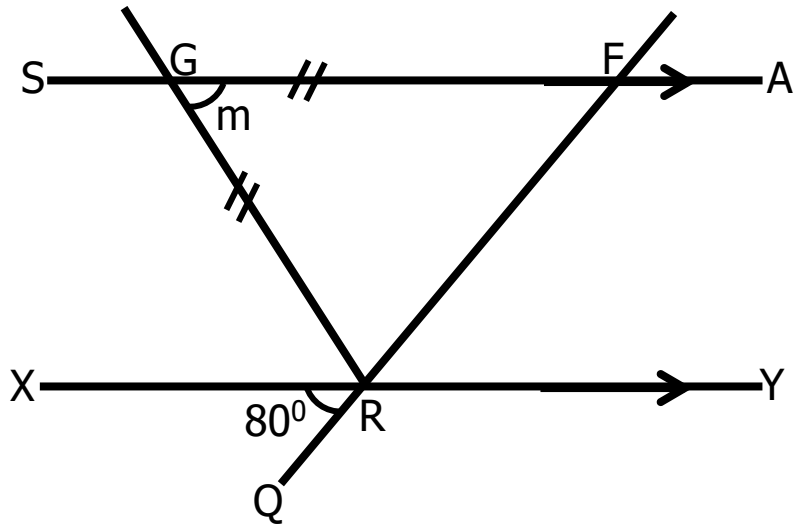


a) Find the length of the carpet. (2 marks)

b) Work out the area of the room not covered by the carpet. (3 marks)

30. In a certain shop, a fountain pen costs thrice as much as a box file and a box file costs sh.1,500 less than a book. The total cost of the three items is sh.19,500. find the cost of a fountain pen. (4 marks)

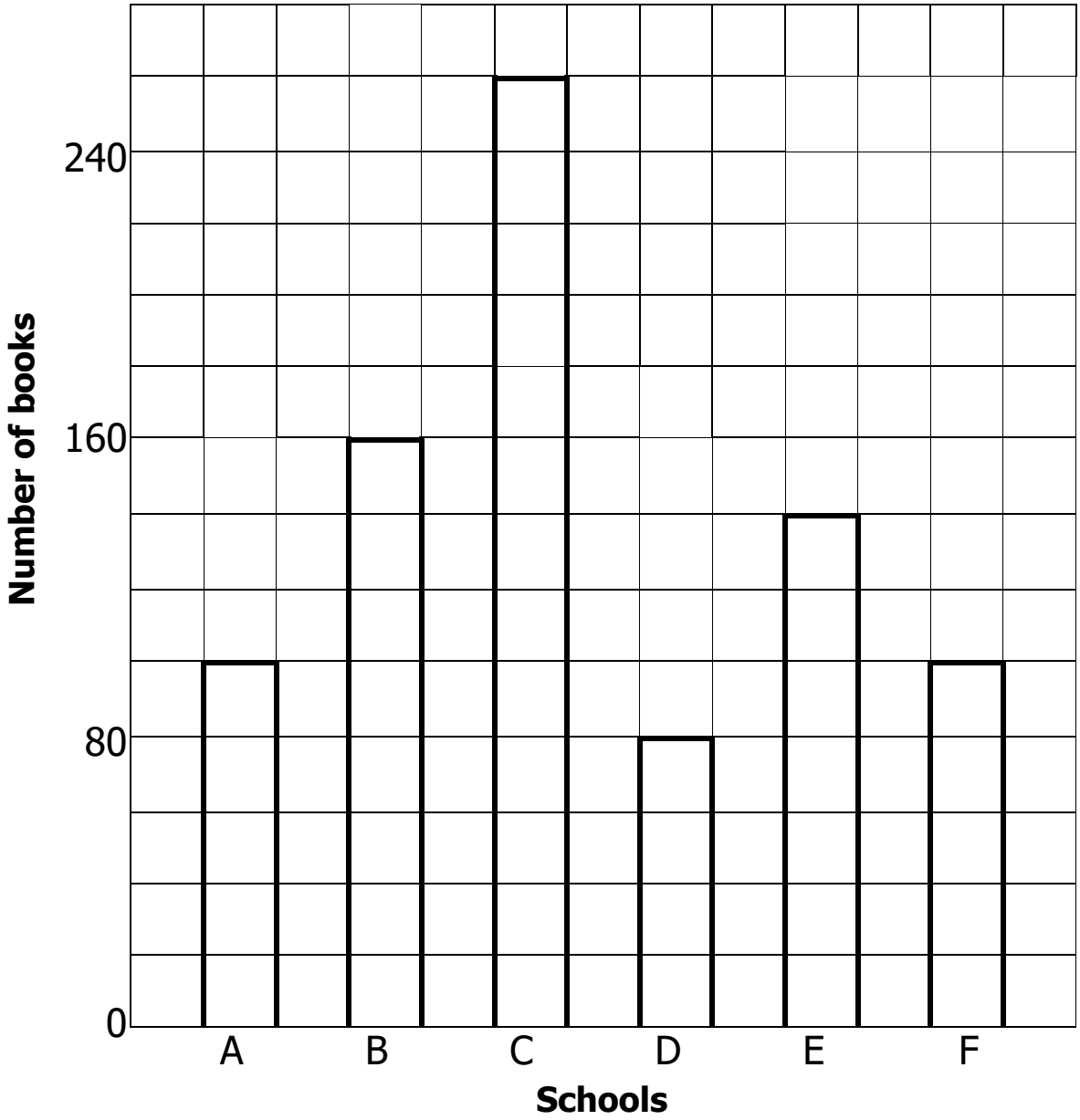
31. In the diagram below, line **SA** is parallel to line **XY**. Line **GR**= line **GF**, angle **XRQ** = 80^0 and angle **FGR** = m. Study it and answer the questions that follow.



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

b). Calculate the size of angle **AFR**. (2 marks)

32. The graph below shows the number of books distributed by a certain factory in some schools. Use it to answer the questions that follow.



a) How many books were distributed to school **E**? (1 mark)

b) Express the number of books of school C as a ratio of those of school D. (2 marks)

c). Calculate the average number of books distributed by the factory to all schools. (3 marks)

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