PACE – PREPARE A CHILD EXAMINATION BOARD

PRIMARY SIX BEGINNING OF TERM ONE EXAMINATION

2025

MATHEMATICS

Time Allowed: 2 hours 30 minutes

Pupil's Name: ……………………………………………………………………………..………..

Pupil's Signature: ……………………………………..……………………………………….

School Name: ………………………………………………………………………………….

District Name: ………………………………………………………………………..…..

Read the following instructions carefully:

1. Do not forget to write your **school** and **district name** 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 **12 printed pages** altogether

3. Answer **all** questions. **All** the working for both sections **A** and **B** must be shown in the spaces provided.

4. **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.

5. **No calculators** are allowed in the examination room.

6. Unnecessary **changes** in your work and handwriting that cannot easily be read may lead to loss of marks.

7. Do not fill anything in the table indicated: **"For Examiners' Use only"** and boxes

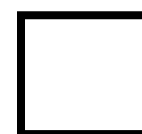| FOR EXAMINERS´ USE ONLY		
Qn.No.	MARKS	EXR´S NO.
1 - 5		
6 - 10		
11 - 15		
16 - 20		
21 - 22		
23 - 24		
25 - 26		
27 - 28		
29 - 30		
31 - 32		
TOTAL		

Answer **all** questions in this Section
Questions **1** to **20** carry two marks each

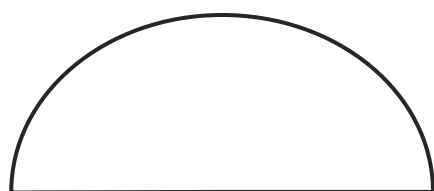1.   Add: 14 + 19

2.   Write 49 in Roman numerals.

3.   Write in figures: Four thousand forty-nine.

4.   Simplify: 2x + 5y − 4x − 4y

5.   Express in powers of ten, the value of 7 in 3701.

6.   Convert 1.4 kg to grams.

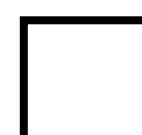7.   Given that **m** = 2^3 x 3^1, find the value of $\frac{3}{4}$m

8. A square piece of land covers an area of 256km^2. Find the length of one side of the piece of land in kilometers.

9. Using a sharp pencil, a ruler and a pair of compasses, construct an angle of 60^0 in the space below.

10. A cyclist covers a distance of 30km in 20 minutes. What speed does he use in km/h ?

11. How many lines of folding symmetry does the figure below have ?

12. Find the range of 90 , 40 , 50 and 20.

13. The cost of 4 books is sh. 12000. How many books can Josh buy with sh.36000 ?

14. Solve: 3y + 4 = 13.
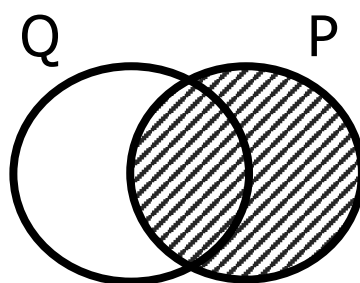
15. Find the GCF of 6 and 15.

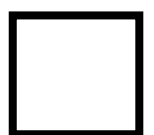16. In a class of 87 pupils, 46 are girls. Draw tallies to represent the number of boys in the class.

17. Round off 8976 to nearest hundreds.

18. Simplify: $\frac{4}{5}$ x $\frac{3}{4}$ ÷ $\frac{1}{10}$

19. Describe the unshaded region in the figure below.

20. In a line of trees, a mango tree is the 11th on either side. How many trees are on the line?

SECTION B: 60 MARKS
Answer **all** questions in this section

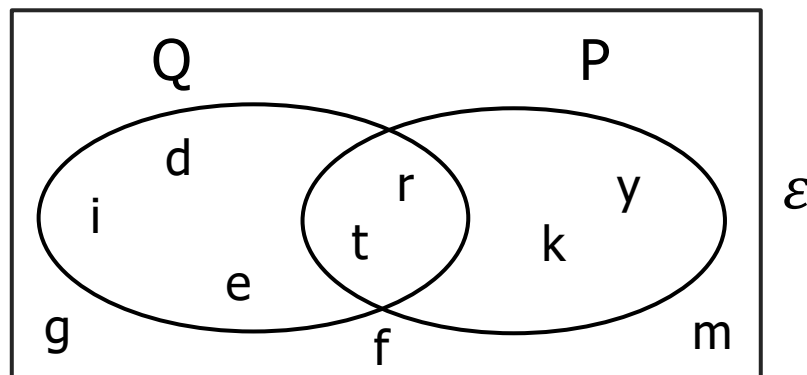Marks for each question are indicated in brackets**.**

21. In a class of 40 pupils, $\frac{3}{5}$ of them are boys and the rest are girls.

    a) Find the fraction of girls. (1 mark)

    b) How many boys are in the class ? (2 marks)

c) Find how many more boys than girls are in the class. (2 marks)

22. Study the Venn diagram below and answer the questions that follow.

a) Find n(P∪Q) (2 marks)
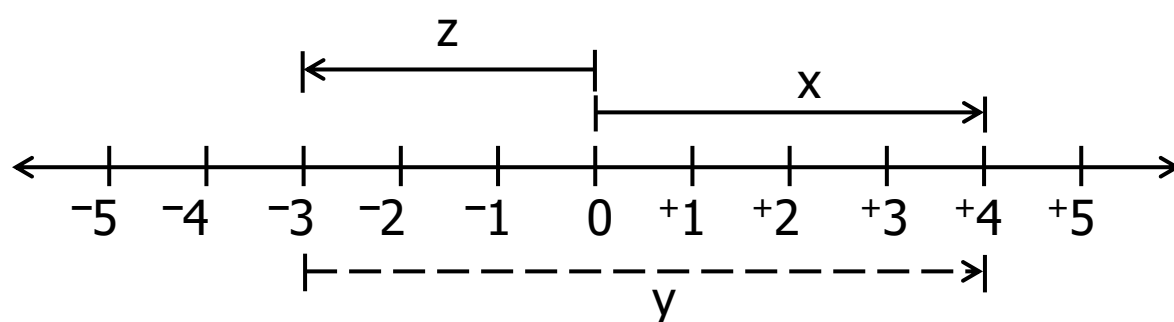
b) How many members are in ε − (P∪Q) ? (2 marks)

23. Pascal is 6 years younger than Jordan. Their total age is 28 years.

a) How old is Pascal ? (02 marks)

b) Express Jordan's age as a mixed number. (03 marks)

24. Using the number line below and answer the questions that follow.

a) Write the integers represented by; (3 marks)

i) x = ……………………………… (ii) y = ………………………………

iii) z = ………………………………

b) What is the additive inverse of ⁻6 ?　(2 marks)

25. a) What is the place value of 2 in 124_{five} ?　(1 mark)

b) Subtract: $403_{five} - 214_{five}$.　(2 marks)

c) Express 34 as a ternary base.　(2 marks)

26. a) Work out: $\frac{3}{5} + \frac{1}{5}$　(2 marks)

b) Arrange $\frac{3}{4}$, $\frac{1}{3}$ and $\frac{2}{3}$ in descending order.　(3 marks)
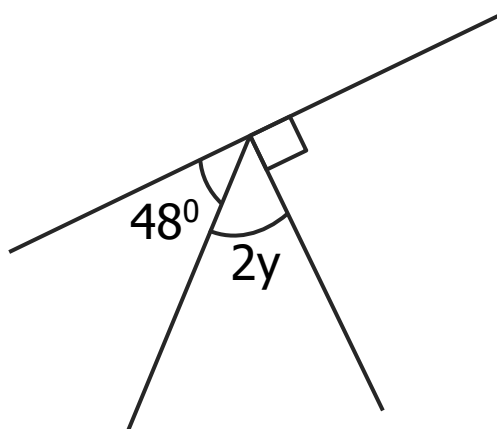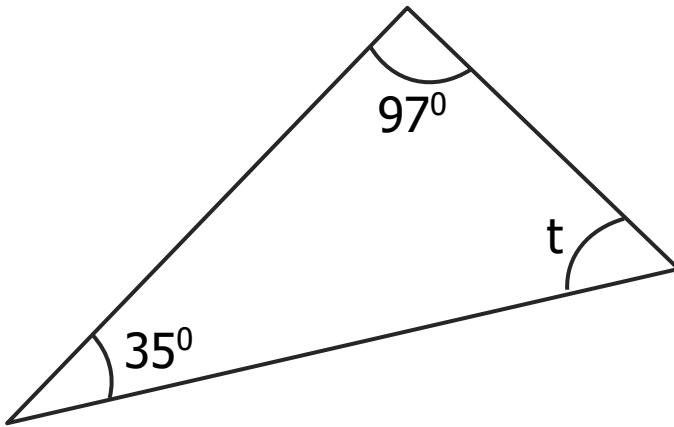
27. Calculate the size of the marked angles ;

a)　(3 marks)

b)   (2 marks)

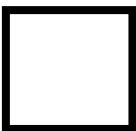

28. Mr. Alyson had sh. 120,000 and prepared the shopping list below.

Item	Quantity	Unit cost	Total cost
Sugar	4kg	Sh. 4,000 per kg	Sh. ....
Maize flour	5kg	Sh. .... per kg	Sh. 10,000
Rice	.... kg	Sh. 3,800 per kg	Sh. 38,000
Beans	.... kg	Sh. 4,000 per kg	Sh. ....
Total expenditure			Sh. 112000

a) Complete the above shopping list.   (5 marks)

b) How much was Mr. Alyson's change ?   (1 mark)

29. Using a ruler and a pair of compasses only, construct a square ABCD of side 5cm.
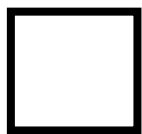   (04 marks)

b) Measure the diagonal AC   (1 mark)

AC = ... cm

30. Cards numbered 3 , 6 , 5 are to be used to form 3-digit numbers.

   a)   Form all possible 3-digit numbers using the above digits.   (3 marks)

   b)   Find the sum of the largest 3-digit odd number and smallest 3-digit even number formed from the above digits.   (2 marks)

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31.   Study the table below and answer the questions.

Number of pupils	2	4	1	3
Marks scored	80	60	90	45

   a)   How many pupils are shown on the table ?   (1 mark)

   b)   Find the average mark.   (3 marks)

   c)   How many pupils scored below the average mark ?   (01 mark)

32.   The diagram below shows a small rectangle enclosed in a big rectangle. Study it carefully and use it to find the area of the shaded region.   (5 marks)

12cm 15cm

18cm

20cm

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8

END