

# BROAD EXAMINATIONS®

## P.7 MATHEMATICS EXAMINATION

### TRIAL SET I TERM II 2024

BROAD  
EDUCATIONAL CONSULT

Time allowed: 2 hours 30 minutes.

Random No.						Personal No.		

Pupil's Name: .....

School Name: .....

District Name: .....

**Read the following instructions carefully:**

1. This paper is made up of two sections: **A** and **B**.
2. Section **A** has **20** questions (**40 Marks**).
3. Section **B** has **12** questions (**60 Marks**).
4. Answer **ALL** questions in both sections **A** and **B**.
5. All answers must be written in the space provided in blue or black ball point pens and ink. **Only diagrams should be done in pencil.**
6. Unnecessary crossing of answers will lead to loss of marks.
7. Any handwriting, which cannot be easily read, may lead to loss of marks.
8. Do **not** fill anything in the boxes indicated for Examiners' use only.

**FOR EXAMINER'S  
USE ONLY**

PAGES	MARKS	SIGN
Page 2		
Page 3		
Page 4		
Page 5		
Page 6		
Page 7		
Page 8		
<b>TOTAL</b>		

**Teacher's comment to the learner**

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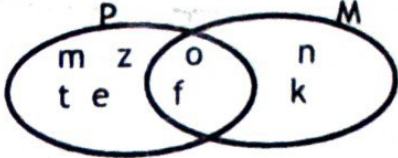


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Approved by:

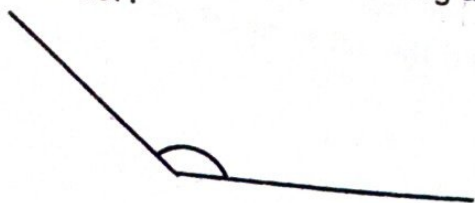
Team Head Mathematics Dept.



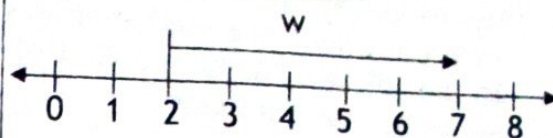
# SECTION .A. (40 MARKS)

1.	Add; $\begin{array}{r} 27 \\ +72 \\ \hline \end{array}$	2.	Write the place value of the odd number in 2548.
3.	Express 4800 millilitres to litres.	4.	Use the venn diagram below to find $n(P - M)$ . 
5.	Study the figure below and find its number of vertices. 	6.	Circle the number that is exactly divisible by 6 in the following numbers. 2461    705    3108
7.	A tray of eggs costs sh.13500. If it is sold at sh.15,000, calculate the profit that can be made.	8.	What morning time is shown on the clockface below? 
9.	Which number was written in standard form to give $1.03 \times 10^4$ ?	10.	Opolot dug $\frac{3}{8}$ of the garden while Omala dug $\frac{2}{7}$ of the same garden. What fraction of the garden did both dig?

11. Measure the angle below using a protractor.



12. Which integer is shown by letter w on the number line below?

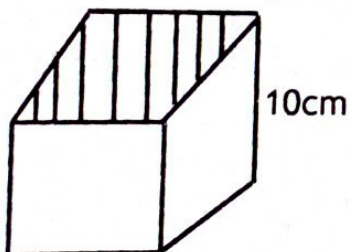


w = \_\_\_\_\_

13. Solve for m in  $\frac{2m}{3} - 5 = 23$

14. Given that set  $K = \{1, 2, 3\}$ , list all possible proper subsets that can be formed from set K.

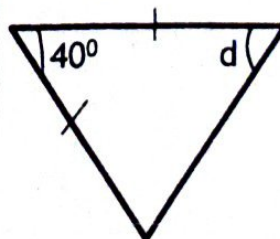
15. The area of the shaded part on the figure below is  $24\text{cm}^2$ . Use it to find the volume of the figure.



16. Bank notes in a bundle are numbered consecutively from EV2449409 to EV2449459. How many notes are in the bundle?

17. The ratio of men to women to children in the village is 4:7:9 respectively. If there are 240 more children than men in the village, find the number of women in the village.

18. Find the value of angle marked d in the figure below.





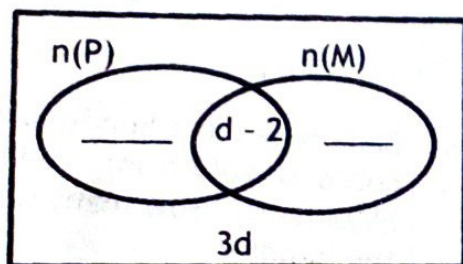
19. The following marks were got by different pupils in a mathematics test. 40, 64, 35, 40, 70, 64 and 40. Use the marks to find the mode.

20. Given that;  $a + b = c$ ,  $a = 4$ ,  $b = -9$ , find the value of  $a^2 + bc$ .

**SECTION .B. (60 MARKS)**

21. In a class, 18 pupils like posho (P), 12 like matooke (M) only,  $d - 2$  like both posho (P) and matooke (M) while  $3d$  pupils like neither of the two meals.

- (a) Use the given information to complete the venn diagram below.



- (b) If 30 pupils do not like matooke, find the value of  $d$ .

- (c) How many pupils are in the whole class?

(06 Marks)

22. (a) Expand 40,379 using powers of 10.

- (b) Find the value of 3 and the place value of 4 in 40,379.

(05 Marks)

23. A woman deposited sh. 240,000 in a SACCO which offers an interest of 3% per year. If she withdrew sh. 250,800 after sometime;

(a) Calculate the simple interest that was offered to the woman.

(b) For how long did the money stay in the SACCO?

(05 Ma

24. (a) Find the sum of the third composite number and the sixth cube number.

(b) Study the sequence below and use to find the value of z.  
2, 3, 7, 16, 32,  $9+2z$

(05 Mark

25. Study and complete the table below correctly.

Kg	3	_____	$2\frac{1}{2}$	16	_____
gm	3000	4000	_____	_____	6120

(06 Ma



(a) Using a ruler, a pencil and a pair of compasses only, construct triangle KQP where  $\overline{KQ} = \overline{KP} = 6\text{cm}$  and  $\angle PKQ = 120^\circ$ .

(b) Measure line PQ.

(05 Marks)

27. (a) Multiply; 
$$\begin{array}{r} 368 \\ \times 59 \\ \hline \end{array}$$

(b) Work out  $(12.5 \times 3.17) + (6.83 \times 12.5)$  using distributive property.

(04 Marks)

28. (a) Simplify;  $2\frac{1}{2}$  of  $\frac{2}{5} - \frac{3}{8}$

(b) Simplify; 
$$\frac{0.24 \times 1.6}{0.48}$$

(05 Marks)

29. A cyclist left town at 11:30a.m and reached the village at 2:00p.m.

(a)

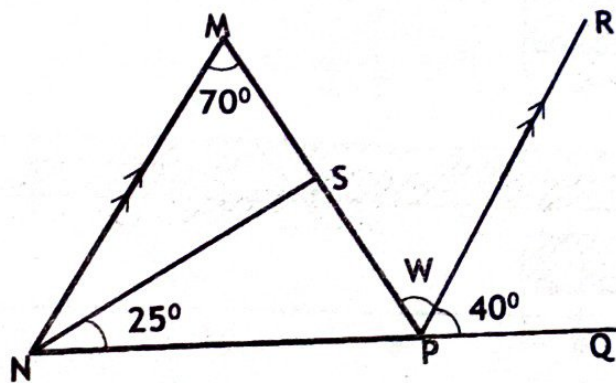
How long did the journey take?

(b)

If the cyclist covered a distance of 150km from town to village, at what speed was he moving?

(04 Marks)

30. Study the figure below and use it to answer the questions that follow.



- (a) Find the value of  $W$  in degrees.

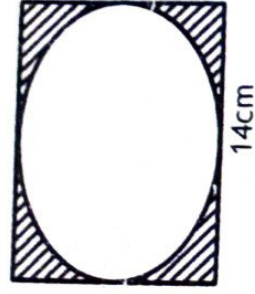
- (b) Find the size of angle  $NSP$ .

(04 Marks)



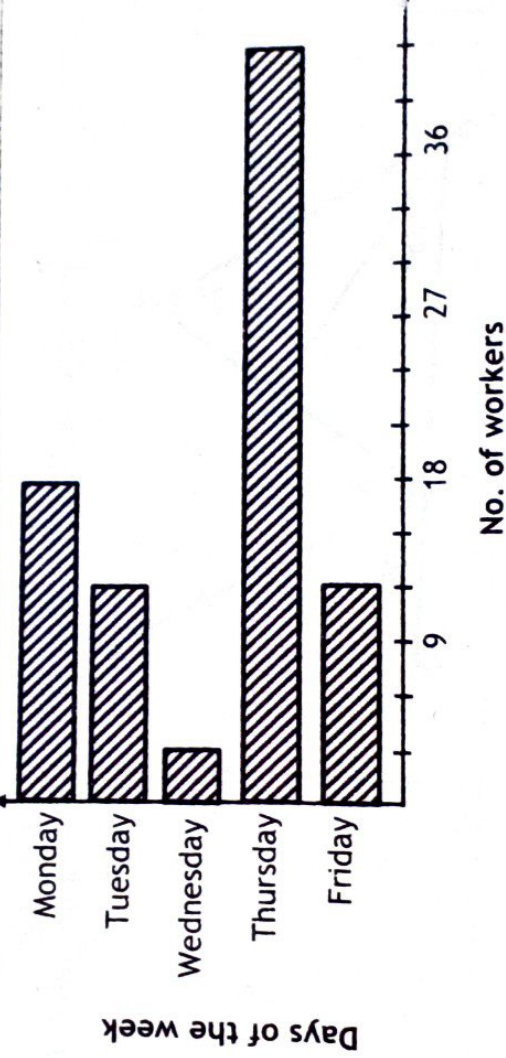
31.

The figure below shows a circle enclosed in a square. Use it to find the area of the shaded part. ( $\pi = \frac{22}{7}$ )



(06 Marks)

32. The graph below represents the number of staff who did not work in a certain company in five days. Given that it was a public holiday on Thursday;



(a) On which day did the highest number of workers attend for work?

(b)

How many workers did not attend on Friday?

(c) Calculate the average number of workers that attended on Monday, Tuesday, Wednesday and Friday.

(05 Marks)

END