



RAPHA EXAMINATIONS BOARD

" Education is an investment"

P.6 STANDARD EXAMINATIONS SET **16**

MATHEMATICS

Time allowed: 2 Hours 30 Minutes

Pupil's Name:.....

Pupil's Signature:.....

School Name:.....

Read the following instructions carefully:

1. This paper has **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 . all answers to both sections **A** and **B must** be written in the spaces provided.
5. **All** answers must be written using a **blue** or **black ball** point **pen** or **ink**. Diagrams should be drawn in a pencil.
6. **Unnecessary** changes in your work may lead to **loss** of marks.
7. Any handwriting that **cannot** be easily read may lead to **loss** of marks.
8. **Do not** fill anything in the table indicated: **" FOR EXAMINERS' USE ONLY"** and boxes inside the question paper.

FOR EXAMINERS' USE ONLY		
Qn. No	MARKS	EXR'S No.
1 – 10		
11 – 20		
21 – 22		
23 – 24		
25 – 26		
27 – 28		
29 – 30		
31 – 32		
TOTAL		

TURN OVER

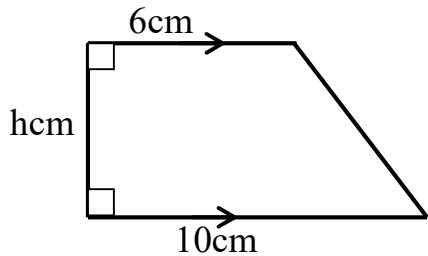
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SECTION A: 40 MARKS

1.	Workout: 324 minus 213	2.	Express CCXCVI as HinduArabic.
3.	Simplify: $^{-}7 - ^{-}3$	4.	Simplify: $5m - 2m + 4m$
5.	Given that the mean of 2, p, 4, 3 and 4 is 4. Find the value of p.	6.	Workout: $\frac{3}{4} - \frac{2}{3} =$
7.	Given that Q has 7 proper subsets. Find n(Q)	8.	Find the fifth triangular number.
9.	Using a pair of compasses, ruler and a very sharp pencil only, construct an angle of 135° .		

10.	Convert 2500g into kilogrammes.	11.	Expand 7.53 using exponents
12.	Solve for k: $\frac{2k}{3} - 4 = 6$	13.	Workout $3^2 \times 9^0$
14.	The ratio of blue pens to red pens in a box is 2:3 respectively. If there are 12 red pens in the box, how many pens are in the box altogether?	15.	An examination which started at 8:40a.m ended after a period of 2hours and 30 minutes. At what time did the examination end?
16.	A trader sold a watch at sh.35000 making a loss of sh. 5000. At what price did the trader buy the watch?	17.	Express 29_{ten} as a quinary base.
18.	Round off 9.999 to 2 decimal places.	19.	Find the square root of 64.

20. The area of the figure below is 40cm^2 . Find its height.

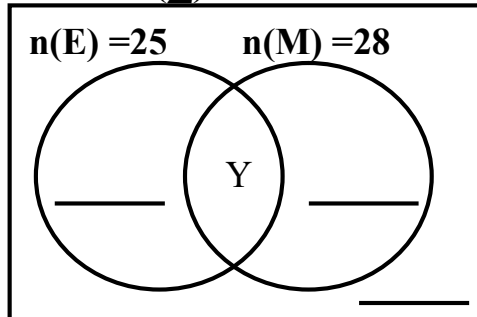


SECTION B: 60 MARKS

21. In a class of 38 pupils, 23 like meat (M), 22 like fish (F), h like both meat and fish while 3 do not like any of the two.

a) Use the above information to complete the Venn diagram below.

$n(\Sigma) = 50$ 3 marks



b) Find the value of h

2 marks

c) How many pupils like fish only?

1 mark

22. a) Workout: $342_{\text{five}} - 24_{\text{five}}$

2 marks

b) Give that $24_k = 14$. Find the value of k

2 marks

23. The sum of three consecutive natural numbers is 36. If the smallest number is $k - 2$. 2 marks

a) Find the value of k 4 marks

b) Write the middle number in words. 2 marks

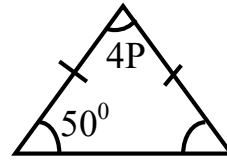
24.	Workout: $\frac{1.6+0.8}{2.5+1.7}$		2 marks
25.	A car moved a distance of 225km in 2hours and 30minutes.		
	a) Calculate the speed the car was using.		b) If the car moved the same distance using a speed of 45km/hr. How long did the car take to cover the same distance?

28. Given that m and 72° are complementary angles, find the value of m

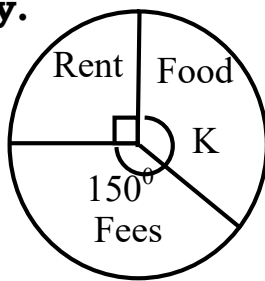
2 marks

Find the value of p in the figure below in degrees.

3 marks



29. **The pie-chart below shows how Mr. Lubwama spends his monthly salary.**



a) Find the value of K in degrees.

2 marks

b) If he spends sh.48,000 on food, calculate Mr. Lubwama's monthly salary

3 marks

30. Wasswa went to the market and bought the following items;

- $1\frac{1}{2}$ kg of meat at sh. 16,000/kg
- 500g of curry powder at sh.6,000 per kg.
- 3litres of milk at sh. 1000 per $\frac{1}{2}$ litre.
- 2kg of rice at sh. 9000.

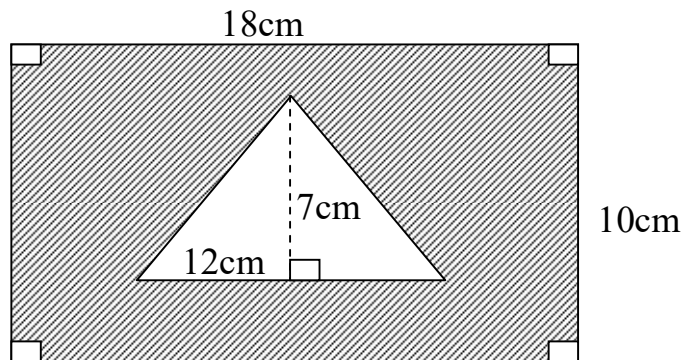
a) Calculate his total expenditure.

4 marks

b) If Wasswa went with one note and remained with sh. 8000, which note did he go with?

2 marks

31. **Study the figure below carefully and use it to answer the questions that follow.**



a) Find the area of the outer figure.

2 marks

Find the area of the outer figure.

2 marks

Calculate the area of the inner figure.

2 marks

32. a) Using a pair of compasses, ruler and a sharp pencil only, construct an equilateral triangle in a circle of radius 3cm.

END