



THE PRIME EXAMINATIONS 2022

P.7 PRE - PLE TRIAL SET VI

MATHEMATICS (Abridged Curriculum)

Time allowed 2 hours 30 minutes

INDEX NO:

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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.
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 those boxes inside the question paper.

FOR EXAMINERS' USE ONLY

QUESTION NUMBER	MARKS ATTAINED	INITIALS
1 - 5		
6 - 10		
11 - 15		
16 - 20		
21 - 22		
23 - 24		
25 - 26		
27 - 28		
29 - 30		
31 - 32		
TOTAL		

~~SIR~~
APPROVED:
Consultant

Mathematics Department (PEC)

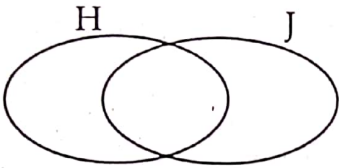

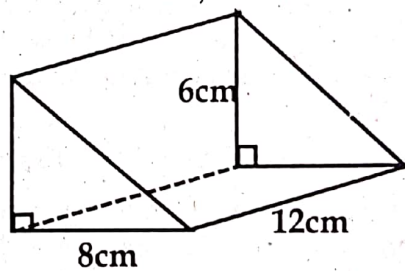
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Turn Over

Section A (40 Marks)

1	Workout: $24 \div 8$	2	Write in figures, "forty six thousand sixty one"
3	<p>Given that set $H = \{2, 3, 5, 7, 11\}$ and set $J = \{1, 2, 3, 4, 6, 12\}$. Show the elements of the two sets on Venn diagram.</p> 	4	Find the mean of $(x + 4)$, $21, 2x$ and $(x + 7)$.
5	<p>The clock face below shows time in the evening. Write the time shown in 24-hour clock.</p>  <div style="border: 1px solid black; width: 40px; height: 20px; margin-left: 400px;"></div>	6	Simplify: $3(2 - y) + 6y$.
7	A motorcycle consumes $\frac{1}{4}$ litres of petrol for every 6km. How many litres of petrol can it use to cover 48km?	8	<p>Find the volume of the triangular prism below.</p> 

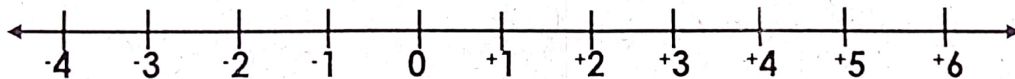
- 9 Using a protractor, a ruler and a sharp pencil. Draw an angle of 60° in the space below.

- 10 Find the next number in the sequence.
2, 3, 7, 16, 32, _____

- 11 Workout: $(75 \times 38) + (25 \times 38)$



- 12 Workout: $+3 + -7$ on the number line below.



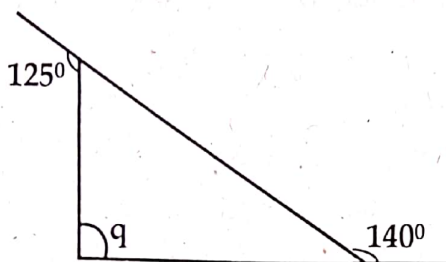
- 13 Round off 6789 to the nearest hundreds.

- 14 Ajidiru drove for $1\frac{1}{2}$ hrs from town R to town T. Town R is 87km from town T. At what speed was Ajidiru travelling?

15 Draw tallies to represent 23 pupils.

16 Given the exchange rates below.
KSh1 = Ush.36
US\$1 = Ush.3500.
Convert USD 180 to Kenya shillings.

17 Find the value of q in degrees.



18 Increase sh.45000 by $12\frac{1}{3}\%$.

19 Solve: $3n + 2 < 14$

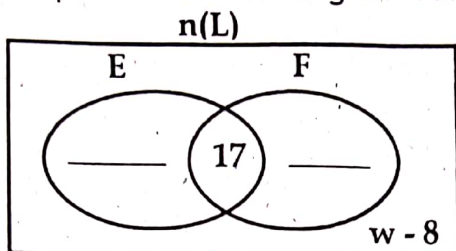
20 Cups of 500ml were used to fill a ten litre jerrycan with milk. Find the number of full cups which were used.

Section B (60 Marks)

- 21 In a certain class, all pupils speak Luganda. Given that $(2w + 3)$ pupils speak Luganda and English (E) only, 28 pupils speak Luganda and French (F) only, 17 speak all the three languages while $(w - 8)$ pupils speak Luganda only.

(a) Complete the Venn diagram below.

(2marks)



- (b) If 60 pupils speak Luganda and English, find the value of w .

(2marks)

- (c) Find the total number of pupils in the class.

(1mark)

- 22 (a) Express 0.2666..... as a vulgar fraction.

(2marks)

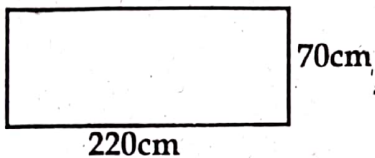
- (b) Simplify: $\frac{3}{4} \times \frac{4}{9} \div \frac{4}{5} + 1\frac{1}{2}$

(3marks)

23 Find the sum of the value of 2 and the value of 3 in the number 1302^{four}. (3marks)

(b) Workout: $23_{\text{five}} \times 14_{\text{five}}$ (2marks)

24 The rectangular sheet of metal below was to be curved into a cylindrical water tank.



(a) Find the diameter of the cylindrical tank. (Take $\pi = \frac{22}{7}$) (2marks)

(b) How much water in litres can the cylindrical tank hold when full? (3marks)

25 A pupil bought the following items from the market.

3kg of sugar at sh.4000 a kg.

500g of rice at sh.5000 per kg.

5 kg of wheat flour at sh.7200 for every 2kg.

(a) How much money did the pupil pay altogether?

(4marks)

(b) If the pupil was given a balance of sh.2500, how much money did the pupil have at first? (1mark)

26 (a) Using a ruler and a pair of compasses only, construct a parallelogram WXYZ where $\overline{WX} = 8\text{cm}$, angle $WXY = 45^\circ$ and $\overline{WZ} = 5\text{cm}$. (4marks)

(b) Measure the length of diagonal WY.

(1mark)

- 27 The table below shows the masses of boys recorded during the first week of the term.

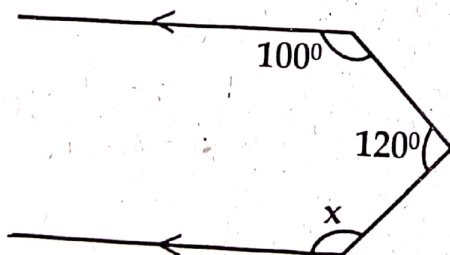
Mass(kg)	55	52	45	x	48
No. of boys	4	1	2	2	1

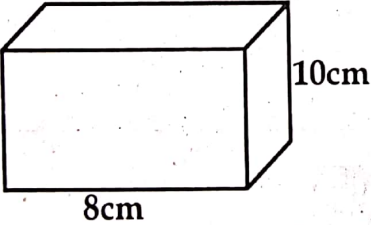
(a) If their mean mass is 49kg, find x. (3marks)

(b) Find the median mass. (2marks)

- 28 (a) The interior angle sum of a regular polygon is 540° . How many sides has the polygon? (3marks)

(b) In the figure below, find the size of angle x. (2marks)



- 29 Kana, Sande and Juma shared books in the ration 4:5:6 respectively. If Kana and Sande both got 36 books,
(a) how many books did they share altogether? (3marks)
- (b) Find the number of books Juma got. (2marks)
- 30 Madra is 56 years old and his son is 8 years old.
(a) After how many years will Madra be thrice as old as his son? (3marks)
- (b) How old will the son be then? (2marks)
- 31 The volume of the cuboid below is 480cm^3 .
- 
- (a) Find the width of the cuboid. (3marks)

(b) Work out the total surface area of the cuboid.

(2marks)

- 32 A taxi travelling at a steady speed of 60km/hr took 3 hours to travel from town A to town B. It rested for 30 minutes at B and returned to town A at a speed of 72km/hr . Calculate the average speed of the taxi for the whole journey.

(5marks)

Hidden Tip For Excellence in Mathematics.



- Passionately engage in study groups especially for those areas/concepts that are challenging to you.
- During these discussions, give and as well listen to other members' views to get the most appropriate answers.