THE PRIME EXAMINATIONS 2022

P.7 PRE – PLE TRIAL SET VI

MATHEMATICS (Abridged Curriculum)

Time allowed 2 hours 30 minutes

INDEX NO:	Random No.						Personal No.		

Candidate's Name:.....

Candidate's Signature:.....

School Random No. .....

District ID: .....

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		

APPROVED:
Consultant
Mathematics Department (PEC)

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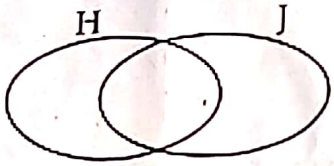
Turn Over

Section A (40 Marks)

1 Workout: $24 \div 8$

2 Write in figures, "forty six thousand sixty one"

3 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.



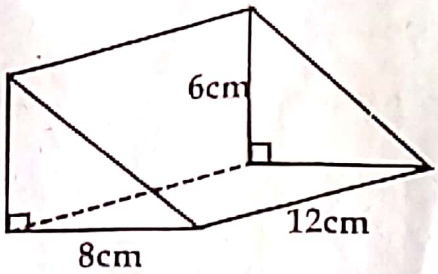
4 Find the mean of $(x + 4)$, 21, $2x$ and $(x + 7)$.

5 The clock face below shows time in the evening.
Write the time shown in 24-hour clock.

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 Find the volume of the triangular prism below.

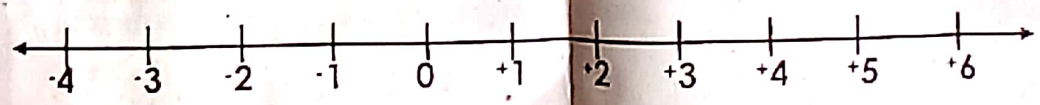


9 Using a protractor, a ruler and a sharp pencil. Draw an angle of 60^0 in the space below.

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

11 Workout: (75 x 38) + (25 x 38)

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



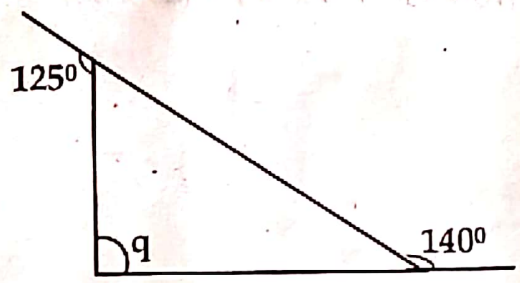
13 Round off 6789 to the nearest hundreds.

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 $12\frac{1}{3}\%$.

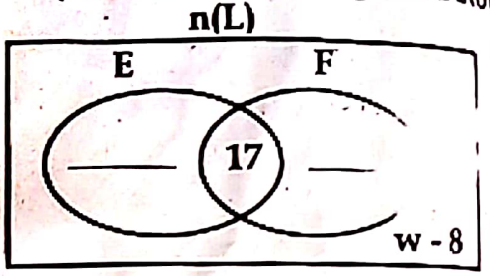
19 Solve: $3n + 2 < 14$

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)*

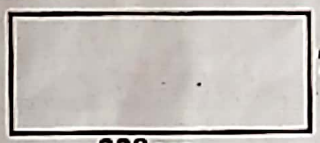
22 (a) Express 0.2666..... as a vulgar fraction. *(2marks)*

(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: $23_{five} \times 14_{five}$ *(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 $\overline{wx}$= 8cm, angle WXY = 45^0 and $\overline{wz}$= 5cm. *(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.

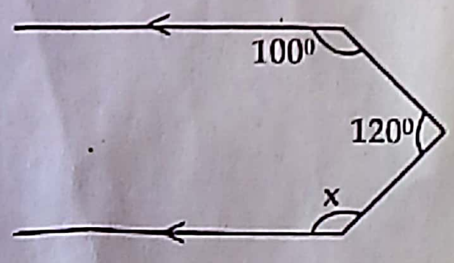
Mass(kg)	55	52	45	x	48
No. of boys	4	1	2	2	1

(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 540^0. 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)*

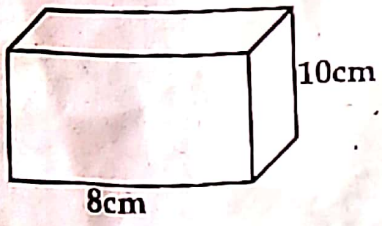
(b) Find the number of books Juma got. *(2marks)*

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 **30minutes** 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)

4 12
$\frac{1}{4} \times \frac{48}{1}$
1
1 × 12
= 12

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.