THE PRIME EXAMINATIONS 2022

P.7 PRE – PLE TRIAL SET IV
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)

Turn Over

Section A (40 Marks)

1	Workout: **68 - 36**	**2**	Write **70596** in words.
3	Given that set A= {1,2,3,5,6,7,8,9} and set B = {2,4,6}. Find n(A∩B)	**4**	Find the reciprocal of three quarters.
5	The average age of **16 pupils** is **12 years**. What is their total age?	**6**	Find the next number in the sequence below. **256, 64, 16, 4, _____**
7	George paid **sh.80,000** for a radio after a discount of **20%**. What was the marked price of the radio?	**8**	A motorist covered **90km** in **45 minutes**. At what speed was he travelling in **km/hr**?

9 Find the value of m **in degrees.**
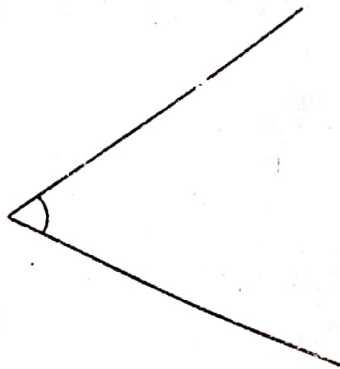

150^0

80^0

m
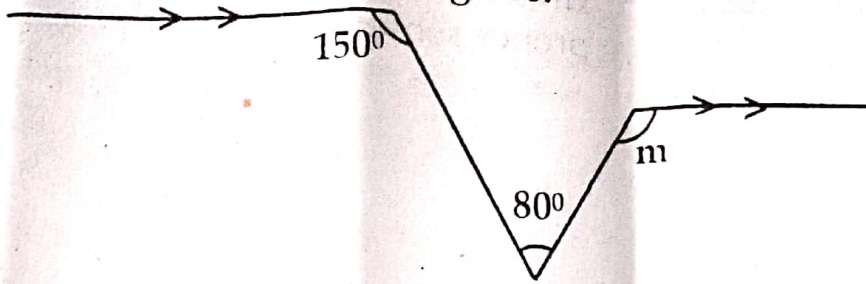
10 Solve the inequality: $4 - \dfrac{p}{2} \leq 8$

11 Work out: $^-7 - {}^+4$

12 How many **300gm** packets can be got from a **90kg** bag of posho flour?

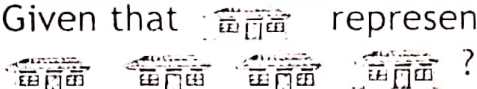**13** Using a ruler, a pencil and a pair of comapsses only, bisect the angle given below.
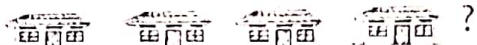
14	If K +5 = 3 mode 7. Find the value of K.	15	Given that set T = {8,7,2}, how many proper subsets can be got from set T?

16	Work out: $\dfrac{8}{9}$ - $\dfrac{1}{4}$	17	The tip of a minute hand is 7cm long. What distance does it cover in 25 minutes.

18 | Given that ⌂⌂⌂ represents **18 houses**, how many houses are represented by ⌂⌂⌂ ⌂⌂⌂ ⌂⌂⌂ ⌂⌂⌂ ?

19	The range of **d** and **-9** is **+8**. Find the value of **d**.	20	Work out: (93 x 8) - (48 x 8)

CamScanner
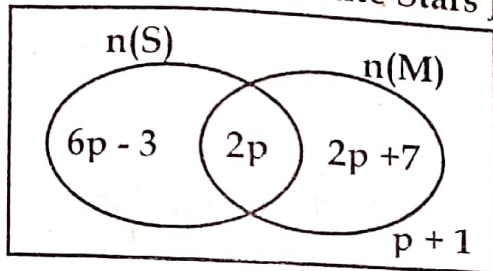
21 (a) Work out: $304_{five} - 243_{five}$

(02marks)

(b) Convert 432_{five} to base seven.

(03marks)

22 The Venn diagram below shows the number of pupils who like Science(S) and Mathematics(M) in White Stars Junior School.

(a) Given that the number of pupils who like Science only is equal to the number of pupils who like Mathematics. Find the value of p.   (03marks)

(b) What is the probability of picking a pupil who does not like science at all to be a prefect?

(02marks)

23 Sarah's car uses **18 litres** of petrol to cover **126km.**
(a) How much petrol does she need for a journey of **196km**?   (03marks)

(b) If the cost of 2 litres of petrol is sh.10,000, how much money does Sarah spend to cover 196km? (02marks)

24 (a) Antonia has a bicycle tyre of diameter 56cm. If he rides through a distance of 0. 88km. How many complete revolutions does the bicycle tyre make? (03marks)

(b) If Antonia's tyre makes 25 revolutions per minute, how long does it take him to cover the given distance? (02marks)

25 Circular tins of A were packed in a rectangular box B.
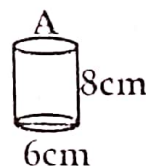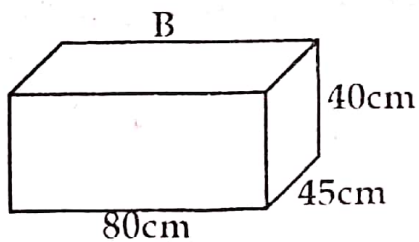
(a) How many tins were packed in the first three layers? (03marks)

(b) Find the volume of the rectangular box. (02marks)

26 (a) Solve for n: $2^{3n} = 2^3 \div 64$ (03marks)

(b) Express 0.00392 in standard form. (02marks)

27 A school bursar issued receipts worthy sh10,000 numbered from 4572 to 4771.
(a) How many receipts did the bursar issue? (02marks)
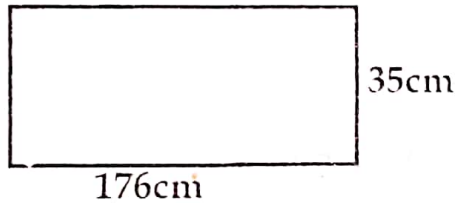
(b) How much money did the bursar collect? (02marks)

28 Kavule takes (P+2) hours to travel from X to Y. It takes him 2 more hours to travel from town Y to Z. If the total journey takes him 10 hours, how much time does he take to travel from X to Y? (05marks)

29 The figure below represents a rectangular metallic sheet to be folded to make a cylindrical tank.

35cm

176cm

(a) Find the area of the circular sheet needed to cover the bottom. (04marks)

(b) Find the volume of the cylinder formed. (02marks)

30. The exchange rates at a forex bureau are as shown below.

Currency	Buying	Selling
Ksh	37	38
Us$	3650	3700
Pond sterling	4300	4400

(a) If Hassan had Ugsh.332500, how much Kenya shillings was he given?

(02marks)

(b) Annet had 176 United states dollars, how many pounds did she get?

(03marks)

31. On a farm, $\frac{1}{4}$ are cows, $\frac{1}{4}$ are goats and the rest are sheep. If the total number of cows and goats is 280, find the number of sheep. (05marks)
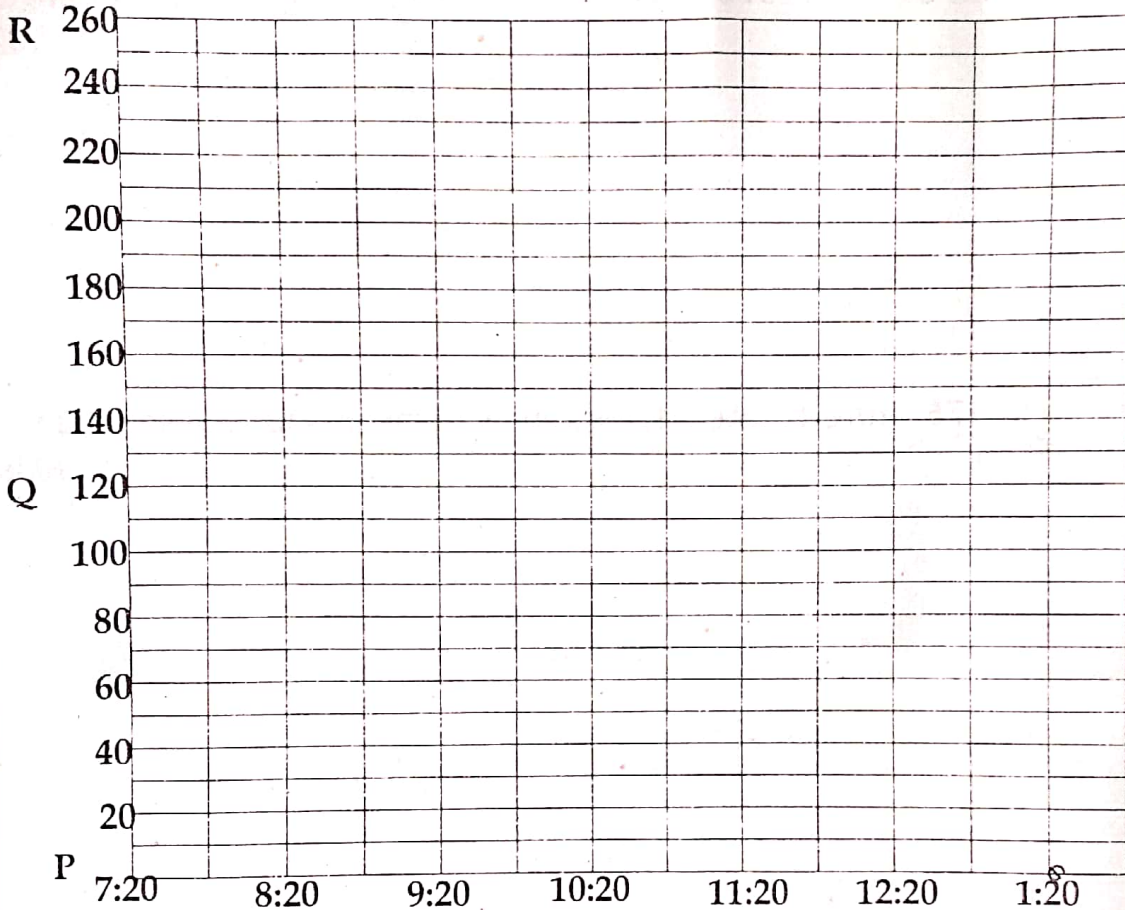
32 A motorist left town P at 7:20am driving at an average speed of 40km/hr for 3hrs to town Q. He stopped at Q for 30 minutes and left for R driving at 50km/hr for $2\frac{1}{2}$ hrs.

(a) Represent the motorist's journey on the graph below.

   Use a scale of :-   Vertical axis 1cm box to rept.10km

   Horizontal axis 1cm box to rept. 30mins.   *(03marks)*

(b) At what time did the motorist leave town Q for R.   *(01mark)*

(c) Write the arrival time at **town R** in 24hour clock system.   *(01mark)*