KAYUNGA DISTRICT ACADEMIC BOARD
PRIMARY SEVEN P.L.E MOCK 2022
PRIMARY SEVEN MATHEMATICS

Time: 2 Hours 30 Minutes

RANDOM No.

Candidate's Name: .....

Candidate's Signature: .....

School Name: .....

Do not open this booklet until you are told to do so.

Read the following instruction carefully:

1. The paper has two Sections: **A** and **B**
2. Section **A** has 20 short 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 spaces provided.
5. All answers must be clearly written using blue ball point Pen or ink. Only diagrams should be drawn in pencils.
6. Unnecessary changes of work may lead to loss of marks.
7. Do not fill in the boxes indicated **"For examiner's use only".**

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

Turn Over

SECTION A (40 MKS)

1. Work out: 237 – 26

2. Write 12,049 in words.

3. Simplify: $\frac{3k}{4} = 6$

4. What is the next number in the sequence below?
   125, 64, 27, 8, _____

5. Given that Set W = {all composite numbers less than 20} Find n(W)

6. Work out: $^{-}3 - {}^{-}5$

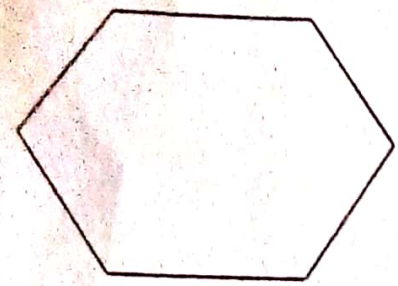
7. Express 36km/hr as M/second

8. Work out: $1\frac{1}{2} \div \frac{3}{4}$

9. Calculate the radius of a circular pond whose area is $6/6m^2$ (Use $\pi = \frac{22}{7}$)

10. A father withdrew twenty thousand shillings notes numbered consecutively from PQ345674 to PQ345968. How much money did he withdraw?

11. Use triangulation to find the number of triangles in a polygon below.



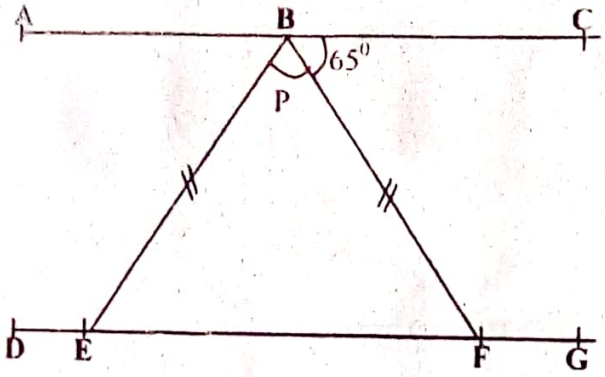
12. What number has been expanded to give
$(4x10^{3}) + (2x10^{1}) + (3x10^{-2})$?

13. A cyclist left town A for town B at 10:00pm. Town B is 120km from A. he arrived at town B at 1:30pm. At what speed was he riding?

14. Use distributive property to work out: **(2.4 x 5) + (3.4 x 4)**

15. A tank was ½ full of water when 300l were drawn the tank became $\frac{1}{6}$ full. Calculate its capacity in litres.

16. In the figure below, find the size of angle P.



17. Use adial to work out: $3 \times 4 =$ (finite 5)

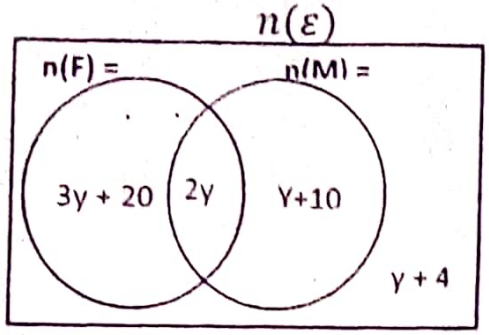
18. Solve: $3y - 7 = 28$

19. Find the value of t in $34_t = 31_{six}$.

20. Use a ruler, pencil and a pair of compasses only to construct an angle of 105^0.

SECTION B (60 MARK)

21. The Venn diagram below shows the number of pupils who like Fish (F) and those who like Meat (M). Use it to answer the questions that follow.



a) If the number of pupils who like fish only is the same as the number of pupils who like meat only. Find the value of y (2mks)

b) How many pupils hate fish? (2mks)

c) Find the probability of selecting a pupil who likes fish to lead the National Anthem. (2mks)

22. Write 0.00469 in scientific notation (3mks)

b) Identify the numbers divisible by 4 without dividing: (2mks)
247, 7138, 612 and 782

23. Use a ruler, pencil and a pair of compasses only to construct a quadrilateral **ABCD** such that $\overline{AB} = 7cm$, $\angle ABC = \angle DAC = 60^0$, $\overline{AD} = \overline{BC} = 4cm$ (4mks)

b) Measure line DC in cm (1mk)

24. Work out: $\dfrac{0.024 \times 0.6}{0.3 \times 0.04}$ (2mks)

b) Express 0.3636..... as a simplified fraction (2mks)

25. A farmer borrowed some money from Equity Bank at an interest rate of 10% per annum for 3 years.
a) How much did he borrow if he paid an interest of Sh. 72,000/=? (3mks)

b) Calculate the amount he paid back after a period of 3 years (2mks)

26. Solve: $3(x + 4) - 2(x - 2) = 12$ (3mks)

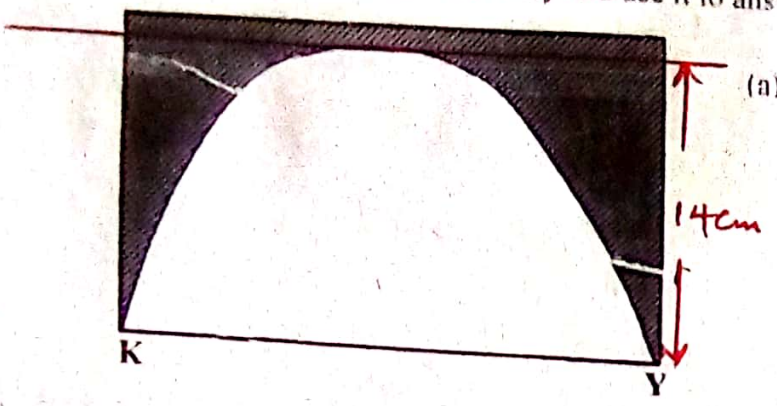
b) During Sarah's 10^{th} birthday her mother was 30 years old. After how many years will the mother be twice as old as the daughter? (2mks)

27. The interior angle of a regular polygon is 3 times the exterior angle

a) Name the polygon (3mks)

b) Calculate its interior angle sum (2mks)

28 Study the figure below carefully and use it to answer the questions that follow



(a) Calculate the length of Arch KY (2mks)

b) Find the area of the shaded region (Use $\pi = \frac{22}{7}$) (3mks)

29. The Table below shows marks scored by some pupils in an examination. Use it to answer the questions that follows.

Marks Scored	70	40	K	80
Number of Pupils	2	4	3	1

a) How many pupils did the test?

(1mrk)

b) If their average mark was 53, find the value of K

(3mrks)

... the median score (1mrk)

The time table below is for a bus travelling from town A to town D. Use it carefully to answer the questions that follow.

TOWN	ARRIVAL TIME	DEPARTURE TIME
A	_____	10:00am
B	10:45am	11:00am
C	11:50am	12:30pm
D	1:30pm	_____

How long does the bus take traveling from town A to town D? (2mrks)

... the total time the bus takes stopping on the way (2mrks)

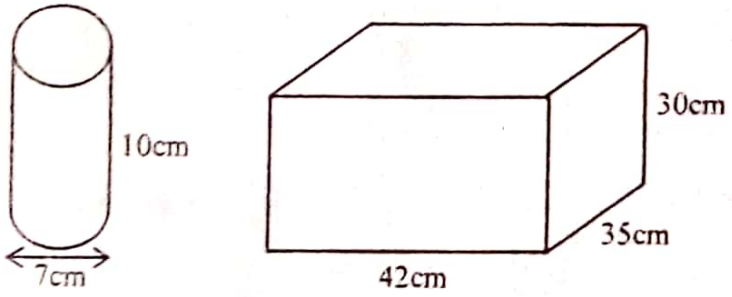
... D is 210km away from town A, Calculate the average speed of the bus for the whole journey (2mrks)

31. A headteacher spends ½ of UPE money on scholastic materials ¼ of the remaining money on transport and he saves the rest.

a) What fraction of the money does he save? (2mrks)

b) Draw an accurate pie-chart of radius 4.5cm to represent the above information (3mrks)

32. A boy was given a job of packing cylindrical tins of blue band in a box as seen below.



(a) How many cylindrical tins can be packed in such a box? (2mrks)

(b) Calculate the space left un occupied after the tins have been packed in the box (Use $\pi = \frac{22}{7}$)

(3mks)