

PRE PLE -2021
SPECIAL P.7 MATHEMATICS SET I
Time allowed: 2 Hours 30 minutes

Candidates' Name:

Index No.

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School:

SECTION A (40 marks)

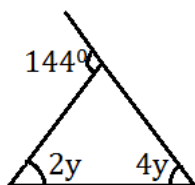
1. Subtract 11 from 101.

2. What number has been expanded $20,000 + 700 + 4 + 10^{-1}$?

3. Write CIX in Hindu Arabic numerals.

4. Given that set C = {All composite numbers less than 20} and set D = {All multiples of 3 less than 25}, find D.

5. Round off 548,761 to the nearest ten thousands.



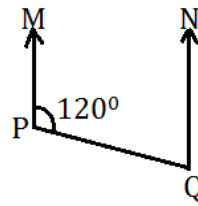
6. Find the value of y in degrees.

7. Mr. Opio bought a dozen of pens for Shs.6,000. He later sold each at Shs.650. Calculate his profit.	8. A mathematics lesson ended at 1:00p.m. If the lesson lasted for $1\frac{1}{2}$ hours. At what time did it begin?
9. Simplify: $^{-}4 + ^{-}2$	10. Workout: $\frac{2}{3} + \frac{2}{5}$
11. Solve: $2m^2 = 32$	12. Convert 41_{five} to Octal base.
13. Mathematics and English textbooks were given to P.7 pupils at Kkonde Primary School in the ratio of 5:3 respectively. How many English textbooks were received if	14. In the space below, use a ruler, pencil and a pair of compasses only to construct an angle of 75° .

240 textbooks were given altogether?

15. Given that $a = 3$, $b = \frac{2}{3}$ and $c = 6$, find the value of $a(bc)$

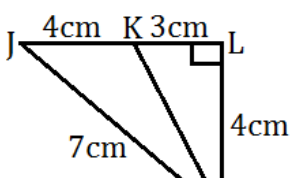
16. In the figure below, find the bearing of P from Q.



17. Two bells ring at intervals of 30 minutes and 45 minutes. They begin ringing together after a certain time. After how long will they next ring together?

18. The exchange rate in the DFU Forex Bureau is Ug.Shs.3,650 for one US Dollar. How many dollars does a tourist need to buy Ug.Shs.730,000?

19. Calculate the area of the triangle JKM.



20. A car travelled at 25m/s from Kampala to Mpigi. What was its speed in km/hr?

SECTION B

21. Kulusumu went to the market and bought the following items;

- $2\frac{1}{2}$ kg of sugar at Shs.4500 per kg.
- 2 loaves of bread at Shs.9000
- 2 litres of cooking oil at Shs.5000 per litre.
- 3000gms of salt at shs.1200 per kg.

a) How much money did she pay for all items?

(4mks)

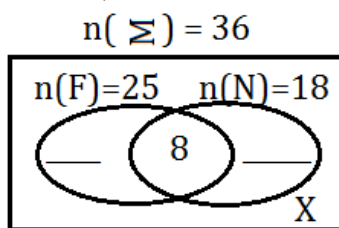
b) If Kulusumu was given a change of Shs.16,150, how much money did she have at first?

(1mk)

22. The Venn diagram below shows a team of 36 Hockey players, some 25 of whom play football (F), 18 play netball (N) and 8 play all the games while X play only hockey.

a) Complete the Venn diagram below.

(2mks)



b) Find the value of x.

(2mks)

c) How many players played only two games?

(1mk)

23. In a Namirembe Theatre, seats are arranged in rows. The theatre has 25 rows with 20 seats on each. On a Christmas day, children occupied the first 8 rows and the elders occupied the rest for the concert,

a) How many people attended the concert?

(2mks)

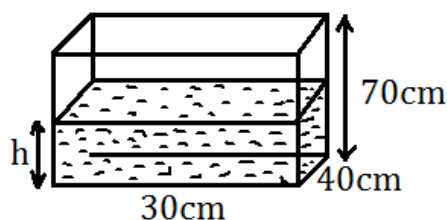
b) If each child paid Shs.6,000 and an elder person paid Shs.10,000, how much money was collected during the concert?
(3mks)

24(a) The sum of three consecutive odd numbers is 63. Find the three odd numbers.

(3mks)

b) Find the range of the numbers.
(1mk)

25. The figure below is a rectangular tank which is 72 litres of water full.



a) Calculate the value of h. (2mks)

b) How many litres of water are needed to fill the tank?
(2mks)

26(a) Using a ruler, pencil and a pair of compasses only, construct a triangle ABC where $AB = 6\text{cm}$, $\angle A = 45^\circ$ and $\angle B = 60^\circ$. Drop a perpendicular line from C to meet line AB at P.

(4mks)

b) Measure: (i) $\angle C$
(1mk)

(1mk) (ii) Line AC

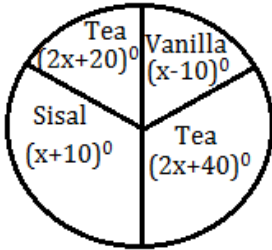
27. Solve and find the solution set for

a) $5y - 3 \geq 12$
(2mks)

b) Solve for x: $2(2x - 1) = 2(x + 8)$
(3mks)

28. The pie chart below shows the quantity of cash crops Uganda exports in a month. Use it to answer the questions that follow.

a) Find the value of x .
(2mks)



b) If Uganda exports 280 tonnes of coffee, how many tones of cash crops does Uganda export altogether?

(2mks)

c) What percentage of sisal does Uganda export?

(2mks)

29(a) A motorcycle broke down after covering $\frac{1}{4}$ of the journey. If 90km were left to cover the whole journey, how long was the journey?

(2mks)

b) Simplify: $\frac{0.68 \times 0.4}{0.16}$
(2mks)

30. By selling a watch at Shs.180,000 a shopkeeper makes a loss of 10%. For how much would he sell it in order to make a gain of 20%?
(4mks)

31. The table below shows marks scored in Mock Exams by some pupils in 2012. Study it and answer the questions that follow.

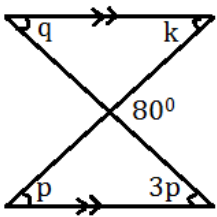
Marks	60	80	70	90
Frequency	x	2	1	3

a) Find the value of x if the mean mark is 74.
(3mks)

b) Calculate the range.
(1mk)

c) Find the median mark.
(1mk)

32. Study the figure below and answer the questions that follow.



(a) Calculate the value of angles marked by letters in Degrees (2mks)

(i) P

ii) q
(1mk)

iii) k
(1mk)

b) The size of each interior angle of a regular polygon is 144° . Name the polygon.

(2mks)

END