LEGACY EXAMINATIONS BOARD

PRE-MOCK SET ONE
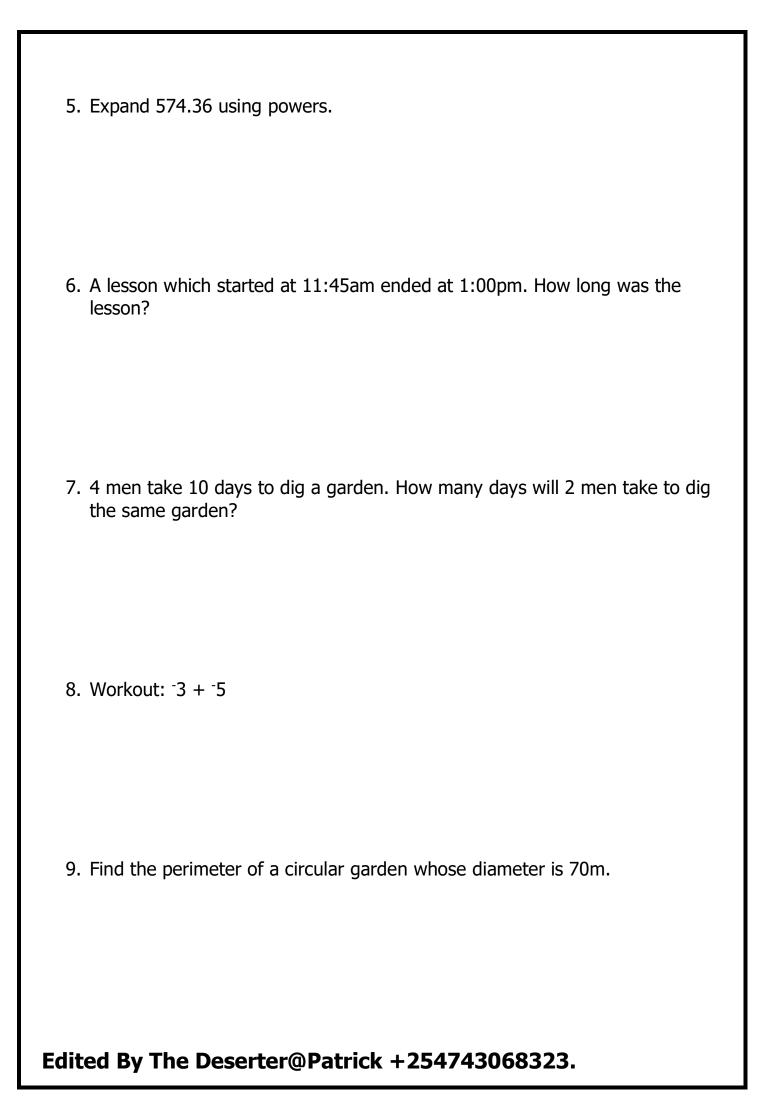
MATHEMATICS

2024

SECTION A (40 marks):

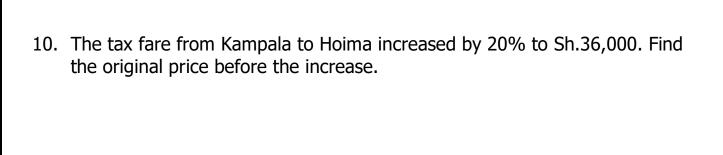1. Workout: $\dfrac{2}{3} \times \dfrac{1}{4}$

2. Write 42,508 in words.

3. Write 449 in Roman Numerals.

4. Given that set X = {c, u, p}. How many subsets has set X

5. Expand 574.36 using powers.

6. A lesson which started at 11:45am ended at 1:00pm. How long was the lesson?

7. 4 men take 10 days to dig a garden. How many days will 2 men take to dig the same garden?

8. Workout: $^-3 + {}^-5$

9. Find the perimeter of a circular garden whose diameter is 70m.

10. The tax fare from Kampala to Hoima increased by 20% to Sh.36,000. Find the original price before the increase.

11. If p = 10, q=-4 and r= p, Find r(p-q).

12. How many 500ml packets can be got from a 20 litre Jerry can of cooking oil.

13. Find the sum of the missing numbers in the sequence;
    125, 64, 27,____, _____

14. Today is Saturday, what day of the week was it 108 days ago?

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15. Change 1010two to decimal base.

16. In a class, the ratio of boys to girls is 2:3 respectively. If there are 30 girls in the class, how many pupils are in the class altogether?

17. Using a ruler, pencil and a pair of compasses only, construct angle 75° in the space provided.

18. Convert 72km/h into m/s.

19. Workout using distributive property.

    (24 x10) – (10 x 14)

20. The bearing of A from B is 60°. What is the bearing of B from A?

SECTION B (60 marks):

21. In a class, 3n pupils like Mathematics (M) only, n pupils like both Mathematics and Science while 2n pupils like Science only.

  a) Draw a Venn diagram and represent the above information.   (3 marks)

  b) If 30 pupils like one subject, find the value of n.   (2marks)

22. The sum of three consecutive even numbers is 72. If the middle number is Z. Find the numbers.   (4marks)

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

23. Namatovu went shopping and bought the following items.
     3 bars of soap at Shs 6000 per bar.

     500gm of sugar at Shs 5000 per kg.

     A packet of wheat flour at Shs 5500.

     2500ml of cooking oil at Shs 8000 per litre.

12 oranges at Shs 1000 for every 4 oranges.

Calculate her total expenditure. (5marks)

24. Using a ruler pencil and a pair of compasses only, construct triangle PQR where line PQ = 7cm, angle PQR = 45° and angle RPQ = 30°.
(4 marks)

b) Measure the length QR. (1 mark)

25. Convert 1001two to base three. (3marks)

b)   Workout: 111two × 101two   (2marks)

26. The exterior angle of a regular polygon is twice its interior angle.

a)   Name the polygon.   (3marks)

 b)   Name the polygon.   (3marks)

27. Namagunga girls P/S bought a cylindrical tank of diameter 7m and Height 10m.

(a)   How many litres of water can the tank hold when it is 3/4 full?

                                                       (3 marks)

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(b)   Find the height of the water when the tank is 3/4 full.   (2 marks)

28. A man spends 1/3 of his salary on food, 1/4 of the remainder on transport and saves the rest. If he saves Shs 480,000. Find his salary.
                                                                        (5 marks)

29. Mr. Musisi shared a certain amount of money among his children Michael, Gabriel and Rafael in the ratio of 3:4:5 respectively. If Rafael received Shs 200,000 more than Gabriel.

(a) How much money did they receive altogether?   (4 marks)

(b) How much more money did Gabriel receive than Michael?   (2marks)

30. A man deposited a certain amount of money in a bank at a simple interest rate of 2% per annum for 6 months. If he withdrew an amount of Shs 505,000 after 6 months. Calculate his principle.   (4 marks)

31. At a farm, of 75 cows, there are 30% more cows than goats and 20% less sheep than cows on the farm. Find the total number of animals on the farm. (5marks)

32. A circular garden of diameter 70m is fenced using poles placed at intervals of 55cm.

a) How many poles are needed to fence the circular garden? (3marks)

b) If each pole costs Sh.2500, how much money will be needed to fence the circular garden? (2marks)