PASS PLE

Bukedde YOUR GUIDE TO A BETTER LIFE THROUGH EDUCATION

MATHEMATICS

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Duration: 2 hours 30 minutes

SECTION A (40 MARKS) each number carries 2 marks

1. Add: 27 + 61

2. Given that X = {1,2,3,4,5} Find the number of proper subsets you can obtain from the set above

3. Round off 54.67 s to the nearest whole number.

4. Find the next number in the sequence below
   2, 3, 6, 12, 22 _____.

5. Simplify: – 2 – – 8

6. Given that a = – 3 and b = 2, find the value of 2(a – b)

7. A car uses 7 litres of petrol for every 25 km. How many litres are needed for a journey of 75km?

8. Express 00 25 hours in 12-hour clock system.

9. A shopkeeper bought 50kg bag of sugar at sh.165,000. At what price must he sell it the sugar in order to make a profit of sh 25,000?
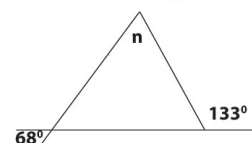
10. Find the value of n if: $22_n = 112_{three}$

11. Find the area of a semi – circle whose radius is 21 dm. (Take $\pi = \frac{22}{7}$)

12. The total surface area of a cube is 24 cm². Find its volume.

13. The bearing of A from B is 250°. What is the bearing of B from A?

14. In a class, the ratio of boys to girls is 3:2. if there are 18 boys. How many pupils are in the class?

15. A cyclist covered 30km in 40minutes. What was his speed in km/hr?

16. Find the value of angle n

$$n, \quad 68°, \quad 133°$$

17. A rectangular plot of land is to be fence with posts at intervals of 5m. if the plot measures 90m by 30m. How many posts are needed to fence the plot?

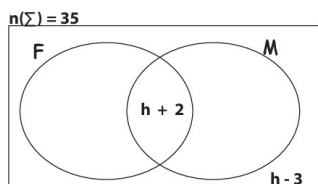18. Write 0.2333... as a fraction in its lowest terms.

19. Express 0.00457 in scientific notation.

20. Ruth scored the following marks in a series of tests:63,48,51,73,66,and 51.What was his median mark?

SECTION B (60 MARKS)

21. 35 guest were invited to a certain party, 22 of the guest liked meat(M), h+2 guests liked both the fish (F) and meat (M), (h-3)ate none of these.
(a) Complete the Venn diagram below.

n(Σ) = 35

F   M

h + 2

h - 3

(b) Find the value of h

(c) How many guests ate fish?

23. A cyclist covered 60% of its journey in 2 hours and 40 minutes. How long was the journey if the cyclist was travelling at 90km per hour?