BUKEDDE PRE-PLE EXAM

SECTION A

1. Multiply: 23 x 0

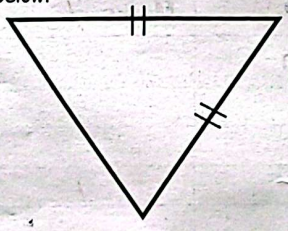
2. Write in numerals "Forty-five thousand, forty".

3. Simplify: -6 - ⁻4

4. Find the missing number in the sequence below:
_____, 20, 16, 13, 11, 10.

5. Given that p = 5, q = 0 and r = 3,
find the value of $p^q + p^r$

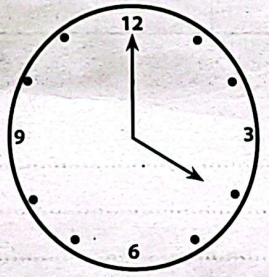
6. How many lines of folding symmetry has the figure below?



7. Write CDV in Hindu Arabic.

8. Construct an angle of 45^0 in the space below. Use a ruler and a pair of compasses only.

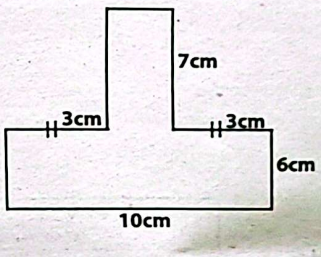
9. A fifty-minute lesson in the afternoon ended at the time shown below. At what time did it start?



10. Mbadi exchanged US$550 for Ug shs 2117,500. Work out the exchange rate.

11. Given that;
A = {All square numbers between 1 and 25}
B = {All factors of 12}, find n(A-B)

12. The figure below shows a flower garden. Study it and find its perimeter.



13. $(3x - 25)^0$ is a supplementary angle of $2x^0$. Calculate the value of x.

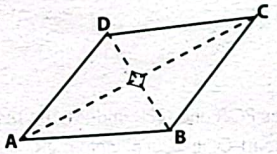
14. Mr. Makada withdrew 100 ten thousand-shilling notes numbered consecutively up to AP534300. Find the registration of the first note.

15. If $2^t \times 3^2 = 144$, find the value of t.

16. The average weight of 4 animals: a cow, a bull, a bullock and a heifer is 120kg. A cow weighs 100kg and bull weighs 130kg. Calculate the weight of a heifer if a bullock is as heavy as a heifer.

17. Find the size of each exterior angle of a regular nonagon.

18. The figure below is a rhombus. AB=20cm and diagonal AC =32cm. Calculate the length of diagonal BD.



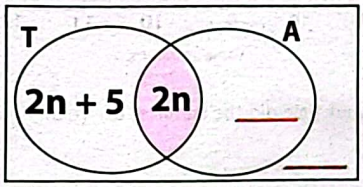
19. Work out: $\frac{5}{6} - \frac{3}{4}$

20. Magret counted the number of girls in a P.7 class. She recorded then using tallies as shown below.

How many girls did she count?

SECTION B

21. A primary seven class of 56 pupils voted for Tom (T) and Alice (A) as follows.
(2n + 5) pupils voted Tom only, (3n – 15) pupils voted Alice only and 2n pupils voted for both Tom and Alice while the number of pupils who did not vote for any of the two candidates is twice the number of those who voted for both candidates.
a) Complete the Venn diagram below.



b) Find the value of n.

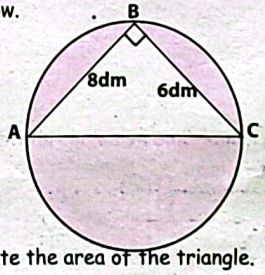
c) How many pupils voted for only one candidate?

22. The digits 4, 0, 6 are used to form a 3-digit numeral using each digit once.
a) Write down all numerals formed.

b) Express the largest numeral in scientific notation.

23. A vender bought 30 apples at sh. 1500 each. If 5 apples got spoilt and she sold the remaining apples making a profit of sh.5000, at what price did she sell each apple?

24. The figure below shows a triangle inside a circle. Study it carefully and answer the questions that follow.



a) Calculate the area of the triangle.

b) Work out out the area of the shaded part.

25. The sum of 3 consecutive even number is 48. If the largest is k,

a) Find these numbers.

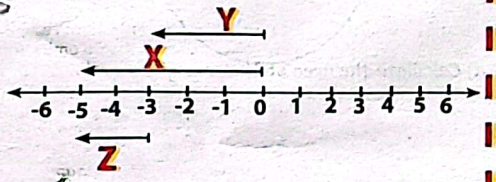
b) Express the sum of these numbers a product of its prime factors.

26. There are 2700 people in a village. 60% of them are males and 35% of the females are girls.

a) Find the number of males in the village.

b) Workout the ratio of girls to males in the village.

27. Study the numberline below and answer the questions that follow.



a) Write down the integers represented by arrows

i) X = _____

ii) Y = _____

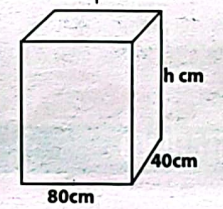
iii) X = _____

b) Write the mathematical statement represented by arrows on the numberline.

28. a) Using a ruler and a pair of compasses only, construct a triangle PQR, where PQ = QR = PR = 6.0cm.

b) Bisect angles PQR and QPR and let the bisectors meet at point O. measure angle PQR.

29. A tap takes 4 hours to fill the tank below at a rate of 40 litres per hour.



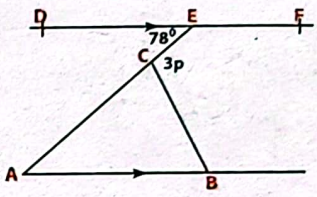
a) Calculate the capacity of the tank.

b) Find the height of the box.

30. a) Subtract 3m – 2k from 5k – 8km.

b) A mother is thrice as old as her son. The product of their ages is 192. How old is the mother?

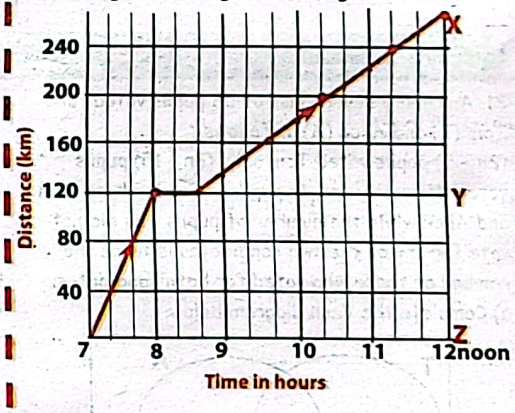
31. In the figure below, AB is parallel to line DF. Angle BAC = angle ABC.



a) Find the value of P in degrees.

b) Work out the size of angle ACB.

32. The graph below shows a motorist journey from village Z to village X via village Y.



a) At what time did the motorist arrive at village y?

b) For how long did the motorist rest at village Y?

c) How far is village Z from village Y?

d) Calculate the average speed of the motorist for the whole journey.