SMILE EDUCATION CONSULTANCY BUSUNJU
P. 6 End of Term III Examination, 2023.
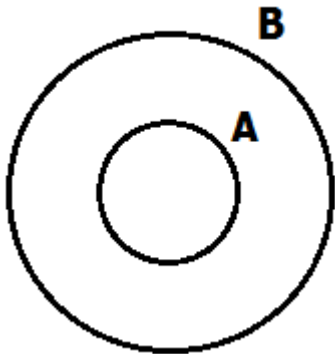## <u>Mathematics.</u>
Time allowed: 2 hours and 30 minutes

Name: _____

<u>SECTION A (40 marks)</u>

1. Work out: 1 7 + 1 1

5. Work out the value of y: $y + 4 = 2 \pmod 7$

2. What is the place value of 4 in the number 3 9 4 6 5?

6. A baby slept from 8:50 a.m. to 10:20 a.m., for how long did the baby sleep?

3. Find the next number in the sequence: 1, 3, 9, 27, _____

7. Draw an angle of 55^0 in the space provided below.

4. Divide: $\dfrac{3}{5} \div \dfrac{2}{3}$
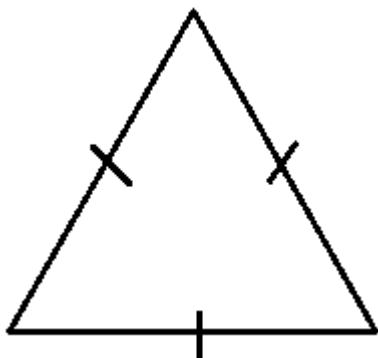
8. Describe the relationship between set A and set B.

9. By selling a shirt at sh. 16,500, a trader makes a loss of sh. 3300. How much money did the trader pay for the shirt?

10. Work out the mean of: 3x , x + 4 and 2x + 5

11. Given that a = 4, b = 3 and c = ⁻2; evaluate ab - c

12. Convert 3.5Km to metres.

13. Find the maximum number of pupils that can share 12 and 18 apples without leaving a remainder in each case.

14. Express $^7/_{10}$ as a decimal.

15. At Down Town Forex Bureau, 1 US dollar ($) = Ug. Sh. 3600. Martha exchanged 250 dollars in Ug. Sh., How much did she get?
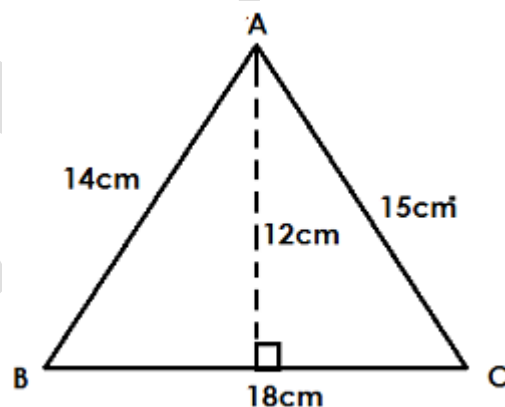
16.   Work out: $1011_{two} - 101_{two}$

19.   Given that set A = {1, 2 , 4,   5} and set B = {3, 4, 6}.
Find n(A − B).

17.   How many lines of folding symmetry does the figure below have?

20.   Calculate the area of triangle ABC below.

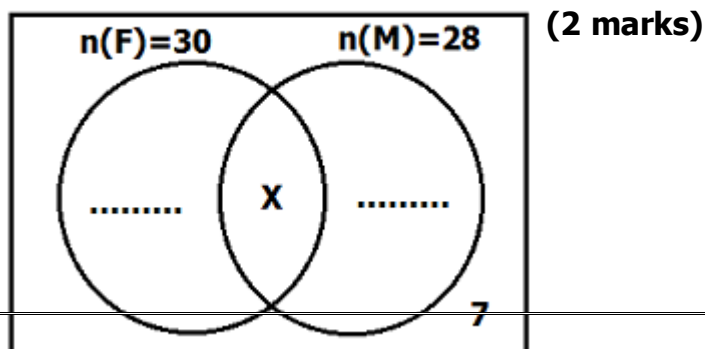18.   Subtract (3y − 8) from (5y − 6)

Section B: (60 marks)

21.   In a group of 53 pupils, 30 like Fanta (F), 28 like Mirinda (M), **x** like both Fanta and Mirinda while 7 like neither of the two drinks.

(a)   Complete the Venn diagram, below.   **(2 marks)**

$n(\xi) = 53$

n(F)=30   n(M)=28

....   X   ....

7

(b)   How many pupils like both types of drinks?   **(2 marks)**

(c)   How many pupils don't like Mirinda?   **(2 marks)**

22(a) Use distributive property to work out: (66 x 36) + (64 x 66)   **(2 marks)**

(b)   Given that $2^{2x} \times 2 = 32$, find the value of x.   **(3 marks)**

23.   **Study and complete the table below. (5 marks)**

ITEM	QUANTITY	UNIT COST	TOTAL COST
Sugar	3Kg	Sh. ………….	Sh. 14400
Bread	……. loaves	Sh.3200 per loaf	Sh. 3200
Milk	2 ½ litres	Sh. 800 per half litre	Sh. ……

Tea leaves	2 packets	Sh. ..... per packet	Sh. ......
Total Expenditure			**Sh. 24000**

24(a) Simplify: $\dfrac{2\,.\,4 \times 3\,.\,6}{1\,.\,2 \times 0.9}$ (**3 mark**)

(b)   8 men can slash a field in 6 days. How many men can slash the same field in 4 days?
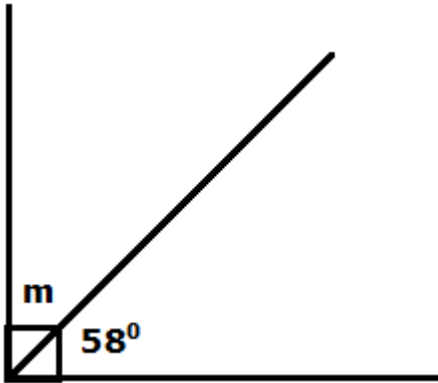
(2 marks)

25.   Two bells are used in a school, one rings after every 30 minutes while another rings after every 45 minutes. If the bells ring together at 8:00 a.m.:

(a)   after how long will the bells next ring together?   **(2 marks)**

(b)   at what time will they next ring together?   **(3 marks)**
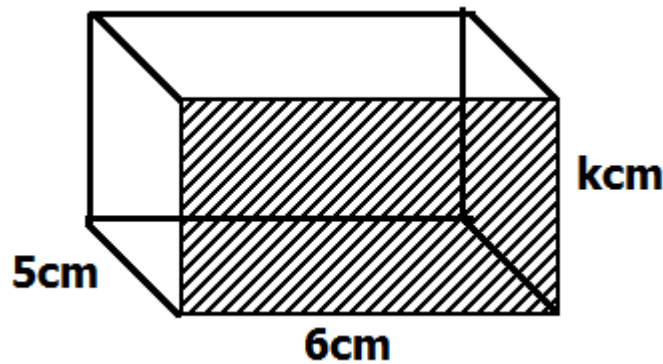
26(a) Find the size of the angle marked **m**.   **(3 marks)**

(b)   Given that $4x^0$ and $x + 30^0$ are supplementary angles. Find the value of x. **(3 marks)**

27.   A bus took 2 ¼ hrs to travel from town P to town R at an average speed of 96Km/hr.

(a)   Calculate the distance between town P and town R.   **(2 marks)**

(b).   If a cyclist covered the same distance at a speed of 54Km/hr. How long did the cyclist take to cover the same journey?   **(2 marks)**
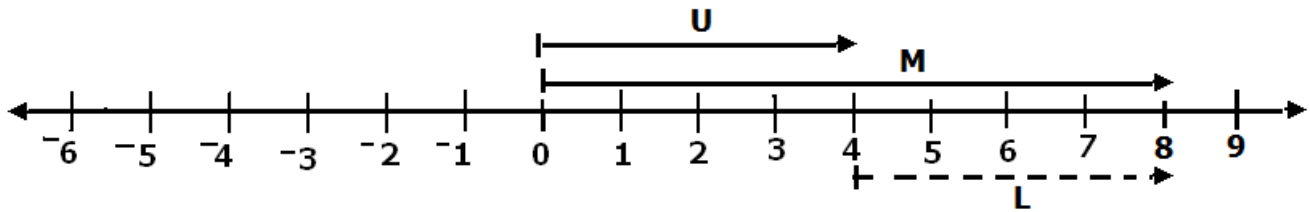
28. **The diagram below shows a cuboid. Use it to answer the questions that follow.**

(a) How many edges has the cuboid above? **(1 mark)**

(b) The area of the shaded face is 24cm^2. Find the value of **k**. **(2 marks)**

(c) Calculate the volume of the cuboid. **(2 marks)**

29. Zainab is 4 times as old as Hamida. In 7 years' time, their total age will be 69 years. How old is each of them now? **(4 marks)**

30.   **Study the number line below carefully.**

(a)   Write the integer represented by the letters below.   **(1 mark each)**

(i)   L = _____   (ii)   U = _____   (iii) M = _____

(b)   Write a mathematical statement represented on the number line above. **(1 mark)**
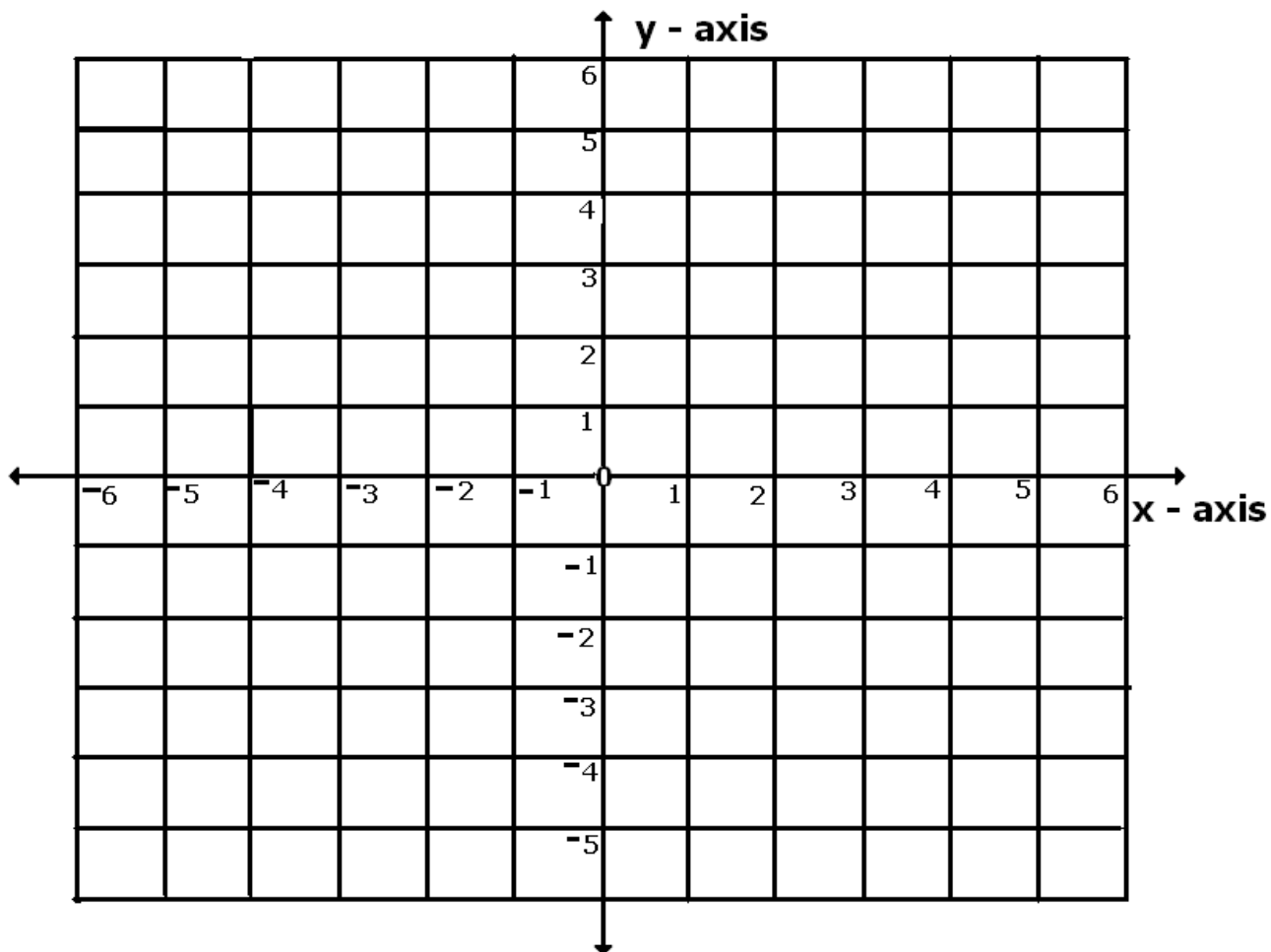
31(a) Change 456 to Roman numerals.   **(2 marks)**

(b)   What is the product of the value of 6 and the value of 7 in 56087?   **(3 marks)**

32(a) **Plot the following points on the coordinate graph below.**

A($^-$2 , 2) , B(2 , 2) , C(4 , $^-$3) , D($^-$4 , $^-$3)   **(4 marks)**

(b)   Join the points and name the figure formed.   **(2 marks)**

END