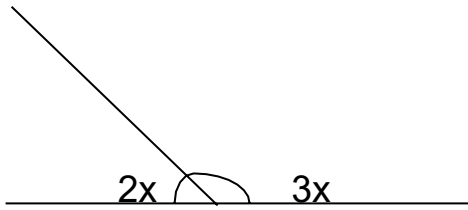# MATHEMATICS HOLIDAY WORK SET TEN

Name: _____Class_____

SECTION A

1.   Work out: 44 x 2

2.   Write XCV in Hindu-Arabic numerals.

3.   Given that N = {1, 2, 7, 10, 17} and M = {1, 3, 5, 9, 11}

Find n (M ∩ N)

4.   Find the next two numbers in the sequence;

3, 5, 8, 10, 13,_____,   _____.
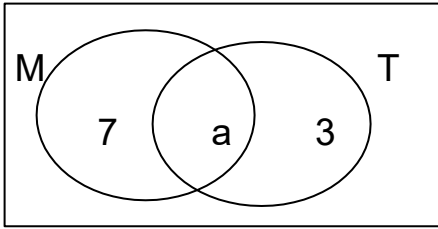
5.   Simplify: 4m — 2n + 5n — 3m

6. In the figure below, find the value of x in degrees.

2x   3x

7. The Mathematics Examination took 2 hours and 30 minutes. If the examination ended at 11:20a.m, at what time did it start?

8. Simplify: $^2/_3$ x 4 ½

9. A dice is tossed once, what is the probability that a square number appears on top?

10. Simplify: $^-6 - {}^+6$

11. Use the Venn diagram below to find the value of a.

$$n (\varepsilon) = 12$$

M T

7 a 3

12. Round off 27.56 to the nearest whole number.

13. Solve the inequality: $2m - 4 < 6$

14. Mariana bought a radio at Sh. 20,000 and later sold it to Glynn a profit of Sh. 15,000. How much money did Glynn pay for the radio?

15. A telephone call is charged Sh. 300 for every 60 seconds used. How much does a customer pay for using 240 seconds?

16. If $(n + 30)°$ and $2n°$ are complementary angles. Find the value of n.

17. A child ate ◯◯◖ oranges in a week. Given that ◯ represents 8 oranges, how many oranges did the child eat altogether?

18. Change 250 centimetres into metres.

19. During the school parade, pupils stood in a line such that Joan was the 8th pupil from each side of the line. How many pupils stood in the line?

20. Aguti is three times as old as Mukula now. If Aguti is "k" years old now, fine their total age.
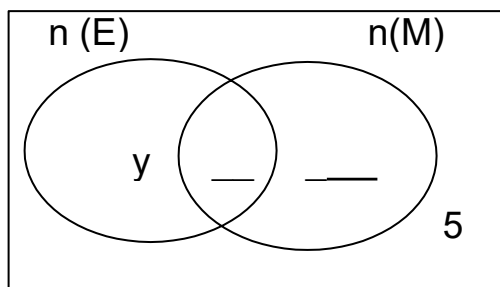
21. a) Simplify: $\dfrac{0.12 \times 0.4}{0.6 \times 16}$ (3 marks)

    b) Simplify: $\dfrac{2}{3} - \dfrac{3}{4} + \dfrac{1}{2}$ (2 marks)

22. In a class of 50 pupils, 25 like English (E), 30 like Mathematics (M), y pupils like English only while 5 pupils do not like any of the two subjects.

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

    n (ε)05 =

    n (E)   n(M)

    y   __   __

                     5

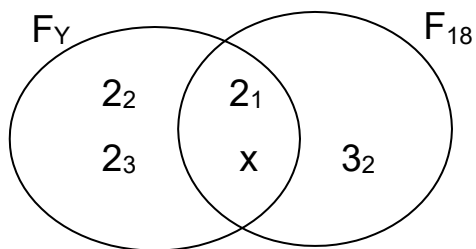b) Find the value of y. (2 marks)

23. a) Change 13 to binary base. (2 marks)

b) Find the number which has been expanded to give;

$(3 \times 10^4) + (9 \times 10^0)$ (2 marks)

24. The Venn diagram below show the prime factors of Y and 18. Use it to answer the questions that follow.

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

b)   Work out the value of y.   (2 marks)

25.   Kato bought the items in the table from the market.

ITEM	QUANTITY	UNIT PRICE	TOTAL AMOUNT
Meat	3Kg	Sh. 8,000 per Kg.	Sh. ………………
Posho	4Kg	Sh……………per Kg.	Sh. 8,000
Salt	……..Kg	Sh. 1,200 per Kg.	Sh. 600
Bread	2 loaves	Sh. 3,200 per loaf.	Sh. ………………
	TOTAL EXPENDITURE		Sh. ………………

a)   Complete the table below.   (5 marks)

b)   If he went to the market with Sh. 50,000, find his change.   (2 marks)

26. a)   Given that a = -3 and b = 2. Find the value of $a^2 - ab$.   (2 marks)

     b)   Solve for p is: $5(p - 3) - 10 = 30$ (3 marks)

27. a)   Using a pencil, a ruler and a pair of compasses only, construct a
          rectangle PQRS in which PQ = 7cm and QR = 5cm.   (4 marks)

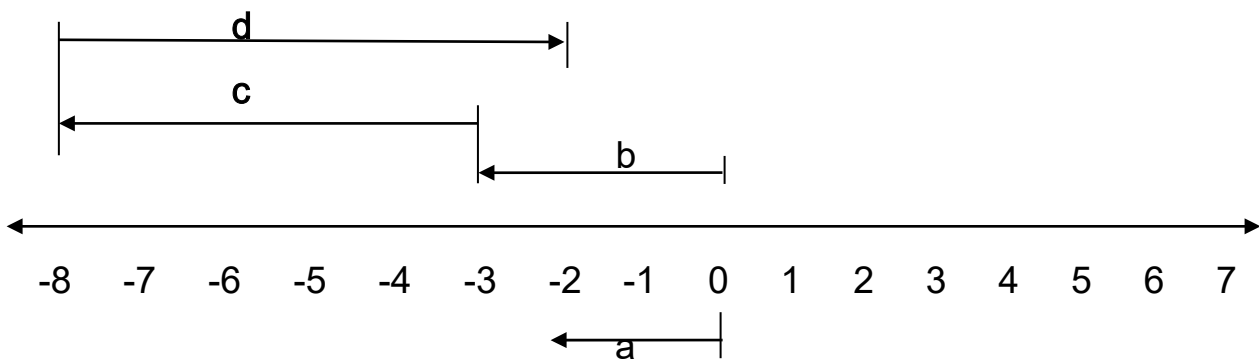   b)   Measure diagonal $\overline{PR}$.   (1 mark)

28. John, Jane and James shared a certain amount of money in the ratio of 2:3:4 respectively.

   a) If James got sh. 24,000 more than John, how much money was shared?

   (3 marks)

   b) What fraction of the total share did Jane get?   (2 marks)

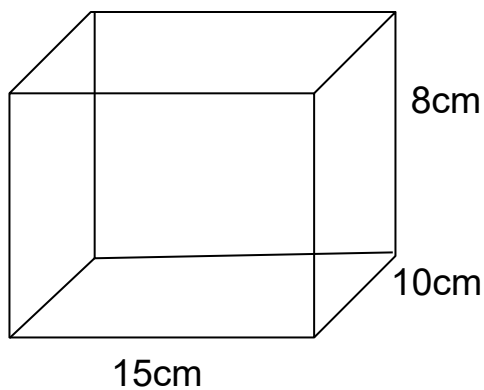29. **Use the number line below to answer the questions that follow.**

   a) Write the integer on each of the arrows shown on the number line above.

   (4 marks)

   b) Write down the mathematical statement for the arrows shown on the number line above.   (1 mark)

30. At a party of 276 pupils and 12 teachers, everybody was served with a bottle of soda and a piece of chicken.

    a)   If a crate of soda contains 24 bottles, how many crates of soda were served?

                                                                   (2 marks)

    b)   If a piece of chicken was for Sh. 2,000 and a bottle of soda Sh. 1,500, how much money was spent altogether?   (3 marks)

31. The figure below is a cuboid. Use it to answer the questions that follow.

15cm, 8cm, 10cm

    a)   Work out the volume of the figure above.   (3 marks)

b)   Calculate the total area of the shaded faces.   (2 marks)

32.   The table below shows the number of mangoes bought by the people in a
      certain shop.

Number of mangoes	6	5	4	7	8	9
Number of people	4	2	1	6	3	4

a)   How many people bought more than 6 mangoes?   (1 mark)

b)   Find the modal number of mangoes bought.   (1 mark)

c) Work out the range of the mangoes bought.   (1 mark)

d) Calculate the average number of the mangoes bought from the shop.

                                                               (2 marks)