S.1 MATHS HOLIDAY WORK, TERM 2 2015

1. a) Write 216 as a product of prime factors.

    b) Find the H.C.F and L.C.M of 36, 54 and 96.

2. Find the equation of a line passing through points (-3, -5) and (5, 7)

3. Solve for w if;

$$\tfrac{1}{5}(w+6) - \tfrac{1}{15}(2w-5) = \tfrac{1}{5}(1-w)$$

4. Given that t = -4 and k = -7. Find the value of p given that p= ½ kt.

5. The average of numbers, a, 70 and 80 is 75. Find the value of a.

6. When a sum of money is divided in the ratio 2:3:4, the smallest share is 3,000/=.
    What is the original sum of money?

7. The price of an article is Shs 24,000. If a discount of 12% is given, calculate the selling price
    of the article.   .

8. a) P =   all factors of 36

        Q =   all multiples of 3 up to 40

        Find ∩ (P ∩ Q)

    b) S = { all prime number between 1 and 11 }. Represent set S on a number line.

9. Melissa withdrew a bunch of 10,000/= notes numbered consecutively from KT534201 to
    KT534300. How much money did he withdraw?

10. Graphically, find the point of intersection of the lines $y = 2x - 3$ and $y = -x - 3$. Calculate
     the area of triangle enclosed between the two lines and the x-axis.

11. a) I think of a number, multiply it by five, add six to the number then divide by
        three. The final answer is equal to seven. What is the number?

    b) All the students in of S.1N are members of German club or of Maths club.
       48 pupils are members of both, 71 belong to German Club and 83 to the
       maths club. How many pupils are there in the class?

12. Given the points $A(1,\ 2)$, $B(11,\ 2)$, $C(8,\ 3)$ and $D(3,\ 8)$. Plot the following on a graph paper name the figure formed.
    i)   State the equation of the line of symmetry.
    ii)   Find the length AB and CD
    iii)   Find the area of $ABCD$

13. a) The table below shows the number of litres supplied to the dining room by school farm.

Days	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Amount(litres)	8	10	12	15	12	11	8

    Draw a bar graph to represent this data

  b)   Copy and complete the table below

Mass(kg), x	f	fx
64	2	128
60	……..	360
------	4	224
52	3	……….
48	4	………
	$\sum f=$…….	$\sum fx=1060$

  c) Use you table to find;

      (i) mean   (ii) mode

14.   a)   The radius of a circle is 15.4cm, find its;

      i) area

      ii) perimeter

    b) A rectangle has sides of $(2x - 4)$ cm and x cm. If its perimeter as 28cm. Find the;

      i)   length of the sides.

      ii)   length of the diagonal.

End