

FORM 1 MATHEMATICS HOUR 1 TERM 3 2014

NAME:.....CLASS:ADM.NO.....

1. Solve the following simultaneous equation. 3 mks

$$\begin{aligned} 3x - 1/3y &= 1/2 \\ X + 1/3y &= 5/6 \end{aligned}$$

2. The ratio of the adjacent sides of a rectangle is 4:5. Find the dimensions of the rectangle if its length is $(x + 1)$ cm and the width is $(x - 3)$ cm. Hence, determine the ratio of the area of the rectangle to its perimeter. 3 mks

3. Find the ratios $x:y:z$ if $x:y = 9:10$ and $y:z = 5:3$ 3 mks

4. There is a 25% loss when an article is sold at sh.200. At what price should be sold in order to make a profit of 5%. 3 mks

5. The area of a trapezium is 20cm^2 and the lengths of the two parallel sides are 4cm and 6cm. Calculate the percentage increase in its area if the perpendicular distance between the parallel sides is increased by 2 cm. 3 mks

6. A rectangle which is three times as long as it is wide has the same perimeter as a square of area 64cm^2 . What is the length of the length of the rectangle? 3 mks

7. Simplify

2 mks

$$\frac{1/c + 1/d}{c + d}$$

8. Juma spent half of his July salary on school fees, one eighth on farming and two-thirds of the remainder on food. Calculate his July salary if he spent sh.3200 on food.
3 mks

9. Musa spent sh.207 to buy seven exercise books and four pens while Allan spent sh.165 to buy five exercise books and five pens of the same type. Find the cost of each item. 3 mks

10. A piece of wire 200cm long is bent to form a rectangular shape. One side of the rectangle is 4 cm longer than the other. Find the dimensions of the rectangle. 2 mks

11. A goat is tethered to a post by a rope 6.3m. Find its maximum grazing area. 2 mks