

Name:Class:Adm No.



SQUIRT FOUNTAINS SERIES

Kenya Certificate of Secondary Education

FORM TWO TOPICAL CHECK 8

MATHEMATICS

Time: 45 minutes

1. The length of a rectangle has increased in the ratio 3 : 2 and the width reduced in the ratio 4 : 5. If the original length and width were 18 cm and 15 cm respectively. Find the ratio of change in its area. (3 marks)

2. The base of a right pyramid is a rectangle of length 80 cm and width 60 cm. Each slant edge of the pyramid is 130 cm. Calculate the volume of the pyramid. (3 marks)

3. Given that $\cos(2x)^\circ - \sin(4x+30)^\circ = 0$. Calculate the value of x (3 marks)

4. Two similar solid cones made of the same material have masses of 8000g and 1000g respectively. If the base area of the smaller cone is 77cm^2 , calculate;
 - a) The base area of the larger cone (3 marks)

b) the radius of the larger cone.

(2 marks)

5. Evaluate

(3 marks)

$$\frac{\frac{3}{4} + 1\frac{5}{7} \div \frac{4}{7} \text{ of } 2\frac{1}{3}}{(1\frac{3}{7} - \frac{5}{8}) \times \frac{2}{3}}$$

6. A line L passes through point (3,1) and is perpendicular to the line $2y=4x+5$. Determine the equation of the line L. (3 marks)

7. A man is now three times as old as his daughter. In twelve years time he will be twice as old as his daughter. Find their present ages. (3 marks)