GATITU SECONDARY SCHOOL. P.O. BOX 327 – 01030, GATUNDU.

FORM 3 MATHEMATICS C.A.T. 1 TERM 2015.

1. The length and the height of a trapezium are stated as 5.5 cm. and 3.5 cm. Calculate

a) The absolute error in calculation of the area. (2mks

b) The relative error in the area. (3mks

c) Percentage error in the area (2mks

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2.   Find the largest angle in a triangle with sides 50mm, 6mm and 65mm.   (3mks

3.   A plane flies for 300km on a bearing of 045°. It turns and flies for 250km until it is due North of its starting point. Find the two possible distances from the starting point.   (5mks

4.   Simplify (a) $\sqrt{3} + 3\sqrt{3}$ (1mk

b) $\sqrt{3} + 5\sqrt{27}$ (2mks

c) $(\sqrt{3} + \sqrt{2})(\sqrt{3} - \sqrt{2})$ (2mks

5.   Simplify the following by Nationalizing the denominator.

a) $\dfrac{1}{2 - \sqrt{3}}$ (2mks

b) $$\frac{\sqrt{3}}{\sqrt{3} - \sqrt{2}}$$ (2mks

c) $$\frac{6}{\sqrt{3} - \sqrt{2}} - \frac{6}{\sqrt{3} + \sqrt{2}}$$ (2mks

d) $$\frac{\sqrt{10}}{1 - \sin 60}$$ (3mks

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