



MACHAKOS UNIVERSITY

SMA305- COMPLEX ANALYSIS-MAKE UP C.A.T

- a.) Factorize $16x^2 + 25y^2$ (2 marks)
- b.) Find the cube roots of -1 (8 marks)
- c.) Show that the function $f(z) = \sqrt{|xy|}$ is not analytic at the origin, although the Cauchy-Reimann equations are satisfied at the origin. (10 marks)
- d.) Evaluate $\int \bar{z} dz$ from $z = 0$ to $z = 4 + 2i$ along the line $z = 2i$ to $z = 4 + 2i$ (10 marks)