BRAC University

Department of Mathematics and Natural Sciences

Total Points: 15

Assignment-01

Course Code: MAT215

Complex

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Section: 12

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Submission Date: _____

Assigned by

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Question 1

Find all possible values of z such that

$$z^5 = 16\sqrt{2}\,(1+i)$$

Locate them in the complex plane. Show that they are contained in a circle and find the radius of that circle. Also find the angular distance between two adjacent roots.

Solution:

Question 2

Consider the equation

$$\left|\frac{z+5i}{z-5i}\right| = 6$$

Describe the above locus in the complex plane

Solution: