



III BRAC University

Department of Mathematics and Natural Sciences

Total Points: 15

Assignment-01

Course Code: MAT215

Complex

Name: MD. ISHTIAQ MOZUMDER

Student ID: 24301219

Section: 12

Semester: FALL 2025

Submission Date: _____

Assigned by

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Question 1

Find all possible values of z such that

$$z^6 = 32\sqrt{2}(1 + i)$$

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

$$|z - 2i| - |z + 2i| = 2$$

Describe the above locus in the complex plane

 Solution: