



BRAC University

Department of Mathematics and Natural Sciences

Total Points: 15

 **Assignment-01**

Course Code: MAT215

Complex

 **Name: SABAH ISLAM SAFIA**


 **Student ID: 24310009**

 **Section: 12**

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Assigned by


 **Partho Sutra Dhor**
Lecturer, Department of MNS
BRAC University

Question 1

Find all possible values of z such that

$$z^6 = \frac{729\sqrt{2}(-1-i)}{2}$$

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

$$\left| \frac{z + 2i}{z - 2i} \right| = 4$$

Describe the above locus in the complex plane

 **Solution:**