**King Saud University Second Semester**

**College of Science 1432/1433**

**Mathematics Department(Girls section)**

**First Mid Term Exam 385**

**Question1**

**Prove or disprove each of the following statements:**

a)If f is continuous at then Imf is also continuous at .

b) is harmonic in any domain not containing the point z=0.

c)

**Question2**

, a)Evaluate

b)Evaluate(

c)Find the domain of analyticity of

**Question 3**

a)Show that if is differentiable at then it satisfies The C-R equations there.

**b**) Let

Show that f satisfies C-R equations at z=0 but it is not differentiable at z=0.