# Mathematics 552 Quiz #5        Name:_____

1. Complete the following:
   **Theorem:** Let $f$ be continuous in a domain $D$. Then the following are equivalent:
   (a)

   (b)

   (c)

2. Show that the function $f(x) = \dfrac{1}{z}$ does not have an antiderivative in the domain $D = \{z \in \mathbb{C} : z \neq 0\}$.