Name: ———————————— Academic Integrity Signature: ————————————
Note: Correct numerical answers without justification will receive little or no credit.

1. (5 points) (Definition) A function f is *continuous* at an interior point c of its domain if

> **Solution:**
> $$\lim_{x \to c} f(x) = f(c).$$

2. (5 points) (*Intermediate Value Theorem*) Let f be a [____] func-

   tion on the interval $[a, b]$. Let y_0 be any value between [____] and [____].

   Then there exists a c between [____] and [____] such that [____]

> **Solution:** Let f be a continuous function on the interval $[a, b]$. Let y_0 be any value between $f(a)$ and $f(b)$. Then there exists a c between a and b such that $f(c) = y_0$.