1. (5 pts.) The Intermediate Value Theorem states:

If

• $f$ is a continuous function on the closed, bounded interval $[a, b]$, AND

• $y$ is any number between $f(a)$ and $f(b)$

Then

• for some number $c$ between $a$ and $b$, $f(c) = y$.

CIRCLE each HYPOTHESIS in the theorem.

2. (5 pts.) Although $f(x) = \frac{1}{x}$ is continuous on $(0, 1]$, it has no maximum value on this interval. Why doesn’t this contradict the Extreme Value Theorem?