

## Quiz 20

Name: \_\_\_\_\_

Give your best attempt at the following question for credit.

1. What is the statement of the Extreme Value Theorem (EVT)?

A continuous  $f(x)$  on a closed and bounded interval is guaranteed to have a global maximum and minimum.

2. Does the EVT apply to the function  $\frac{1}{x}$  on the interval  $0 < x \leq 1$ ? Why or why not?

No, the EVT does not apply because the interval is not closed; it does not contain one of the endpoints, namely 0.