

- Determine whether the Mean Value Theorem can be applied to $f(x)$ on the close interval $[a, b]$. If the MVT can be applied, find all values of c in the open interval (a, b) .

$$1. \ f(x) = x^3 - x^2 - 2x \quad [-1, 1]$$

$$2. \ f(x) = \frac{x+1}{x} \quad [-.5, 2]$$

$$3. \ f(x) = x^3 \quad [0, 1]$$

$$4. \ f(x) = \frac{x+1}{x} \quad [.5, 2]$$