

4B Checkup

1. (a) Show that the function satisfies the hypotheses of the Mean Value Theorem on the given interval $[a,b]$ (b) Find each value of c in (a,b) that satisfies the equation $f'(c) = \frac{f(b) - f(a)}{b - a}$

$$f(x) = x^2 + 2x - 1, \quad [0,1]$$

2. A trucker handed in a ticket at a toll booth showing that in 2h she had covered 159 mi on a toll road with speed 65 mph. The trucker was cited for speeding. Why? (be sure to reference the MVT in your justification)