

1a)

$$\Delta x = -0.50 \Rightarrow m = 0.53$$

$$\Delta x = -0.25 \Rightarrow m = 0.16$$

$$\Delta x = 0.25 \Rightarrow m = -0.41$$

$$\Delta x = 0.50 \Rightarrow m = -0.59$$

1b)

$$m = -0.16$$

1c)

$$-0.08 \leq \Delta x \leq 0.10$$

2a)

$$\Delta x = -0.50 \Rightarrow m = -0.88$$

$$\Delta x = -0.25 \Rightarrow m = -0.97$$

$$\Delta x = 0.25 \Rightarrow m = -0.88$$

$$\Delta x = 0.50 \Rightarrow m = -0.97$$

2b)

$$m = -1.0$$

2c)

$$-0.46 \leq \Delta x \leq 0.46$$

3a)

$$\Delta x = -0.50 \Rightarrow m = -0.59$$

$$\Delta x = -0.25 \Rightarrow m = -0.41$$

$$\Delta x = 0.25 \Rightarrow m = 0.16$$

$$\Delta x = 0.50 \Rightarrow m = 0.53$$

3b)

$$m = -0.16$$

3c)

$$-0.10 \leq \Delta x \leq 0.08$$

4a)

NO

4b)

as  $\Delta x \rightarrow 0$ , the secant line  $\rightarrow$  the tangent line