

[1] 
$$\frac{(2(x + \Delta x)^2 - 3(x + \Delta x) + 2) - (2x^2 - 3x + 2)}{\Delta x}$$

[2] 
$$4x + 2 \Delta x - 3$$

[3] 
$$\lim_{\Delta x \rightarrow 0} \left( \frac{((x + \Delta x)^2 + 3(x + \Delta x) + 2) - (x^2 + 3x + 2)}{\Delta x} \right)$$

[4] 
$$g'(x) = 4x \pm 1$$

[5] 
$$0 \leq x \leq \frac{1}{2}$$

[6] 
$$\text{about } 57 \text{ turkeys}$$

[7] 
$$2005 \text{ and } 2006$$

[8] 
$$h'(2) = \pm 19.6 \frac{\text{m}}{\text{sec}}; \text{ This is the velocity of the rock 2 seconds after the beginning of its fall.}$$

[9] 
$$d'(4.5) = 18.9 \frac{\text{ft}}{\text{sec}^2}; \text{ This is the rate at which Jim's old car increases in speed when it passes } 4.5 \text{ feet per second.}$$

[10] 
$$h'(t) = \pm 32t + 42.3$$

[11] 
$$\frac{1}{8} \text{ sec}$$

[12] 
$$88.9 \text{ ft}$$

[13] 
$$A'(x) = 140 \pm 2x$$

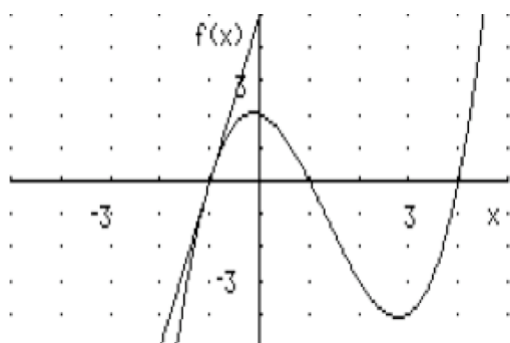
[14]  $x = 60 \text{ ft}$  \_\_\_\_\_

[15]  $11,025 \text{ ft}^2$  \_\_\_\_\_

[16]  $\pm \frac{3}{2}$  \_\_\_\_\_

[17]  $\pm 1 \leq x \leq 2$  \_\_\_\_\_

Answers vary. Sample:  $f'(\pm 1) \approx 5$



[18] \_\_\_\_\_

[19] [A]

[20] [D]