

Algebra I (Lesson 6.2)

7. slope = $\frac{-1-1}{1-(-1)} = \frac{-2}{2} = -1$

$$y - y_1 = m(x - x_1)$$

$$y + 1 = -1(x - 1)$$

9. slope = $\frac{4-3}{2-0} = \frac{1}{2}$

$$y - y_1 = m(x - x_1)$$

$$y - 3 = \frac{1}{2}(x - 0)$$

11. (0, 200) slope = 20

$$y - 200 = 20(x - 0)$$

$$y - 200 = 20(5 - 0)$$

$$y = \boxed{300 \text{ dollars}}$$

13. (1, 5) (4, 35)

$$m = \frac{35-5}{4-1} = \frac{30}{3} = 10$$

$$y - 5 = 10(x - 1)$$

$$100 - 5 = 10(x - 1)$$

$$95 = 10x - 10$$

$$10x = 105$$

$$x = \boxed{10.5 \text{ days}}$$

15. (1000, 210) (3000, 206)

$$m = \frac{210-206}{1000-3000} = \frac{4}{-2000} = -0.002$$

$$y - 210 = -0.002(x - 1000)$$

$$y - 210 = -0.002(6000 - 1000)$$

$$y = \boxed{200^\circ \text{ F}}$$

17. (1.5, 2150) (3, 2330) $m = 120$

$$y - 2150 = 120(x - 1.5)$$

$$y - 2150 = 120(4 - 1.5)$$

$$y = 2450 \text{ ft.}$$

$\boxed{\text{no, it will not reach 2500 ft}}$

20. A. That Maria is walking
at a fixed rate.

B. $x \rightarrow$ # of minutes

$y \rightarrow$ # of blocks

$$(0, 12); (6, 8)$$