Name _____ Date _____

LESSON 3.5

Practice

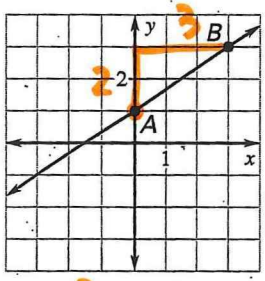
For use with pages 180–187

$y = mx + b$ ① Find the slope m ② Find the y-int. b ↗ * you may have to solve for b using $y - y_1 = m(x - x_1)$ #3-6

Write an equation of line *AB* in slope-intercept form.

choose a point B(2, 0) x_1 y_1

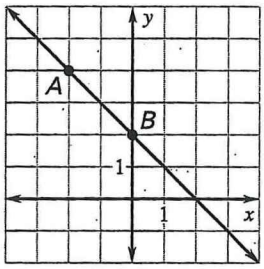
1.



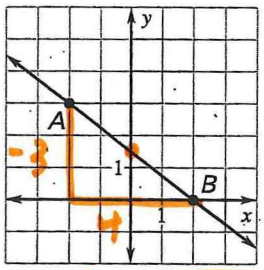
$m = \frac{2}{3}$ $b = 1$

$y = \frac{2}{3}x + 1$

2.



3.



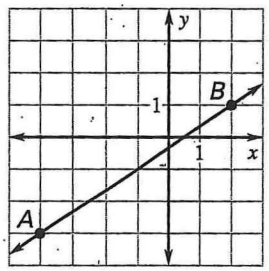
$m = \frac{-3}{4}$ $b = ?$

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

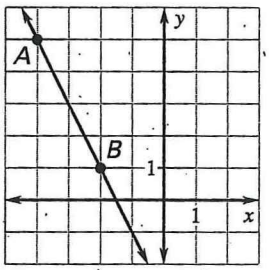
$y - 0 = \frac{-3}{4}(x - 2)$

$y = \frac{-3}{4}x + \frac{6}{4}$ $y = \frac{-3}{4}x + \frac{3}{2}$ $y = \frac{-3}{4}x + 1.5$

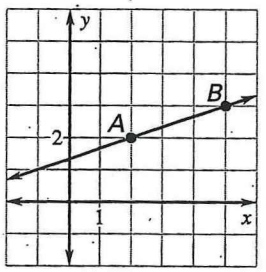
4.



5.



6.



Write an equation of the line that passes through point *P* and is parallel to the line with the given equation. same slope $y - y_1 = m(x - x_1)$

7. $P(-2, 0); y = -\frac{1}{2}x + 6$ (x_1 y_1)

$m = \frac{-1}{2}$

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

8. $P(3, 9); y = 4x - 8$

9. $P(-5, -4); y = -2x - 10$

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LESSON 3.5 **Practice** *continued*
For use with pages 180–187

opposite reciprical

Write an equation of the line that passes through point *P* and is perpendicular to the line with the given equation. $y-y_1=m(x-x_1)$

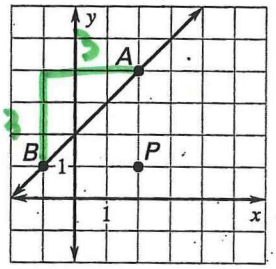
10. $P(5, 20); y = \frac{1}{2}x + 8$ $x_1\ y_1$ $m=-2$ $y-y_1=m(x-x_1)$

11. $P(4, 5); y = -\frac{1}{3}x - 6$

12. $P(3, 5); y = 4$

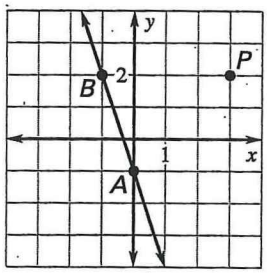
Write an equation of the line that passes through point *P* and is parallel same slope **to line *AB*.** $y-y_1=m(x-x_1)$

13.

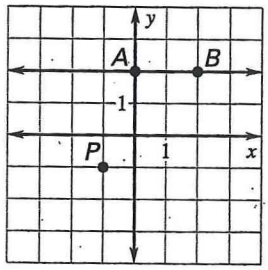


$m=1$ $P(2,1)$ $x_1\ y_1$ $y-y_1=m(x-x_1)$

14.



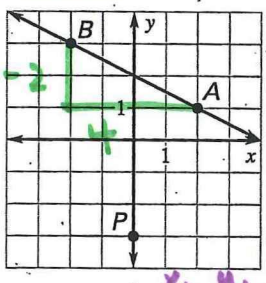
15.



opposite reciprical

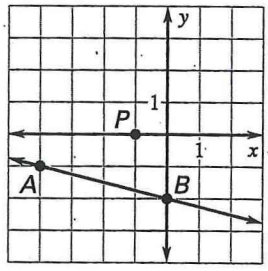
Write an equation of the line that passes through point *P* and is perpendicular to line *AB*.

16.

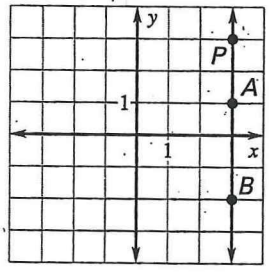


$m=\frac{-1}{2}$ $m=2$ $P(0,-3)$ $x_1\ y_1$ $y-y_1=m(x-x_1)$

17.



18.



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LESSON 3.5

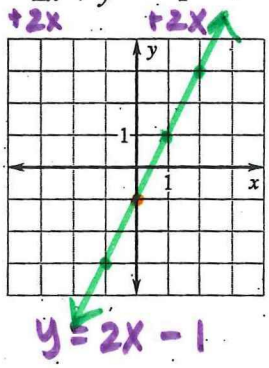
Practice *continued*

For use with pages 180–187

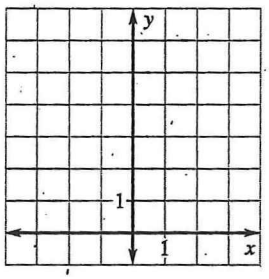
Re-write in slope-intercept form: $y = mx + b$
solve for y, then graph (0, b)
use slope $\frac{\text{rise}}{\text{run}}$

Graph the equation.

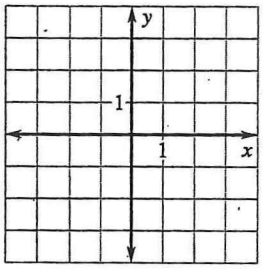
19. $-2x + y = -1$



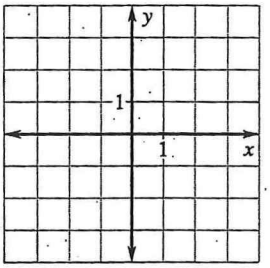
20. $y - 3 = -3x + 2$



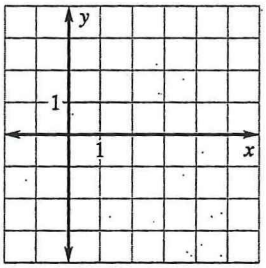
21. $y + 6 = 4$



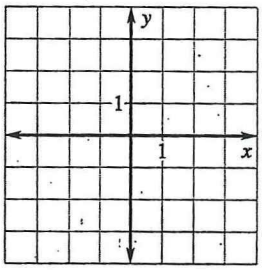
22. $2(x - 1) = -y$



23. $x - 4 = 0$



24. $2y - 4 = 2x$



25. Country Club The graph models the total cost of joining a country club. Write an equation of the line. *Explain* the meaning of the slope and the y-intercept of the line.