Algebra 1

Parallel and Perpendicular Worksheet

Name_____

Write in point-slope form the equation of the line that is parallel to the given line and passes through the given point. Your final answer should be in slope-intercept form.

1. $y = x + 5$, (-1, -1)

m = _____

point _____

point-slope:_____

final:_____

2. $y = -3x + 1$, (2, 4)

m = _____

point _____

point-slope:_____

final:_____

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

m = _____

point _____

point-slope:_____

final:_____

4. $y = 2x - 11$, (3, 4)

m = _____

point _____

point-slope:_____

final:_____

5. $y = \frac{1}{2}x$, (8, -10)

m = _____

point _____

point-slope:_____

final:_____

6. $y = \frac{1}{3}x + 4$, (-4, -4)

m = _____

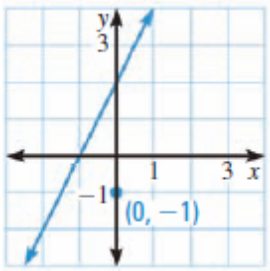
point _____

point-slope:_____

final:_____

Write in slope-intercept form the equation of the line that is parallel to the line in the graph and passes through the given point.

7.



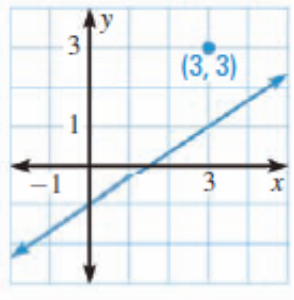
m = _____ point _____

point-slope:_____

final:_____ (graph this equation)

Write in slope-intercept form the equation of the line that is parallel to the line in the graph and passes through the given point.

8 .



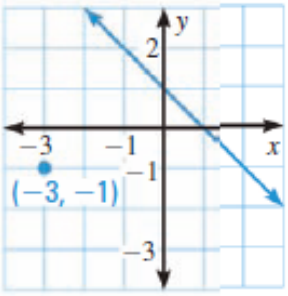
m = _____

point _____

point-slope:_____

final:_____
(graph this equation)

9



m = _____

point _____

point-slope:_____

final:_____ ___
(graph this equation)

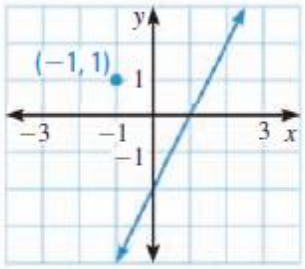
10. What is the slope-intercept form of the equation of the line parallel to the line in the graph that passes through the point (-1, 1)? After completing the work, circle your final answer and graph it on the grid.

A. $y = 2x - 3$

B. $y - 3 = 2(x - 1)$

C. $y = -2x + 3$

D. $y = 2x + 3$



Use point-slope form to write an equation in slope-intercept form of the line that is perpendicular to the given line and passes through the given point.

11. $y = 3x - 1$, (1, -3)

m = _____

point _____

point-slope:_____

final:_____

12. $y = -\frac{1}{2}x + 4$, (8, 5)

m = _____

point _____

point-slope:_____

final:_____

13. $y = x + 2$, (3, 0)

m = _____

point _____

point-slope:_____

final:_____

14. $y = \frac{7}{8}x$, (0, 3)

m = _____

point _____

point-slope:_____

final:_____

15. $y = -\frac{2}{3}x + 4$, (-4, 6)

m = _____

point _____

point-slope:_____

final:_____

16. $y = -2x + 8$, (-3, 1)

m = _____

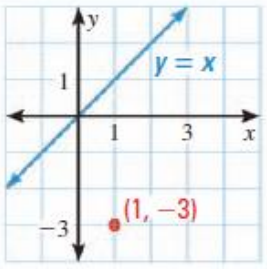
point _____

point-slope:_____

final:_____

Write in slope-intercept form the equation of the line that is perpendicular to the line in the graph and passes through the given point.

17.



m = _____

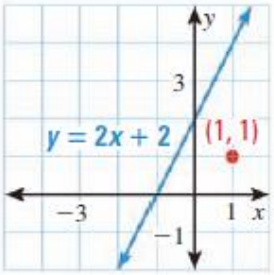
point _____

point-slope:_____

final:_____

(graph this equation)

18.



m = _____

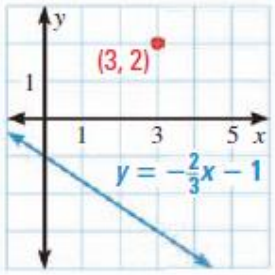
point _____

point-slope:_____

final:_____ ___

(graph this equation)

19



m = _____

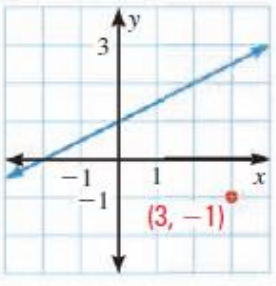
point _____

point-slope:_____

final:_____

(graph this equation)

20.



m = _____

point _____

point-slope:_____

final:_____ ___

(graph this equation)