Name _____**Date** _____

Algebra II A/ 2.4-2.5 Review

Find the slope and the y intercept of each line.

1. $y = 2x + 1$ $m =$ _____ $b =$ _____

2. $y = 3x - 4$ $m =$ _____ $b =$ _____

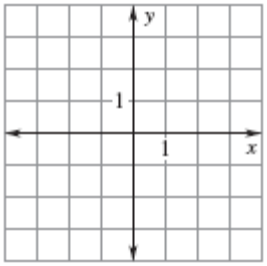
3. $y = -2x + 2$ $m =$ _____ $b =$ _____

4. $y = \frac{-1}{3}x - 2$ $m =$ _____ $b =$ _____

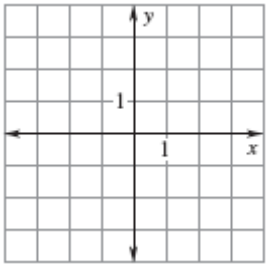
5. $y = -5x - 10$ $m =$ _____ $b =$ _____

Graph the line with the given slope and y intercept.

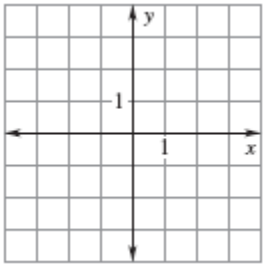
6. $m = 1,\ b = 1$



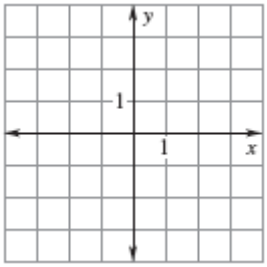
7. $m = 2,\ b = -2$



8. $y = \frac{-2}{3}x + 4$



9. $4x - 2y = 6$



Write an equation of the line in y = mx + b form that has the given slope and y intercept.

10. $m = 2, b = 1$ _____

11. $m = 4, b = -3$ _____

12. $m = -5, b = 2$ _____

13. $m = ½, b = 0$ _____

14. $m = 0, b = 3$ _____

Write an equation of the line in $y = mx + b$ form that passes through the given point and has the given slope. Use $y - y_1 = m(x - x_1)$

15. $(-2, 3), m = 1$ _____

16. $(-1, 4), m = 3$ _____

17. $(3, 5), m = -2$ _____

Write an equation of the line in $y = mx + b$ form that passes through the given points. Find m and b! find the slope first $m = \frac{y_2 - y_1}{x_2 - x_1}$,then pick on point, then Use $y - y_1 = m(x - x_1)$

18. $(1, 2), (2, 5)$ _____

19. $(4, 2), (1, -1)$ _____

20. $(2, 4), (3, 4)$ _____

Given the graph, write an equation of the line in $y = mx + b$ form.

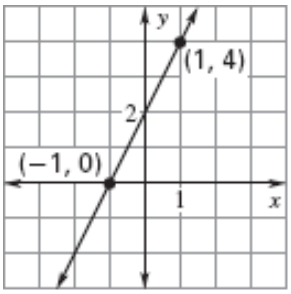
21.

m = _____

b = _____

Equation:

_____



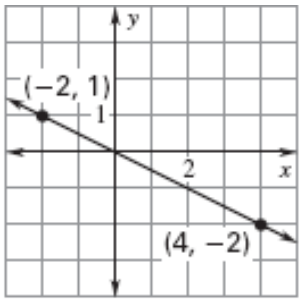
22.

m = _____

b = _____

Equation:

_____



23. You need to start saving money to cover expenses for a vacation with your friends. Right now, you have $250 and you plan to save $20 per week. Write an equation that models the total amount of your savings if your vacation is **x** weeks away.

Equation: _____

How much will you have saved after 4 weeks? _____

Write an equation of the line described below. Show all work!

24. $passes\ through\ (-2, 3);\ parallel\ to\ y = 4x - 3$ _____

25. $passes\ through\ (-1, -4);\ perpendicular\ to\ y = 2x + 5$ _____

Determine whether the lines are parallel, perpendicular, or neither. Show work!

26. $line\ 1:\ y = 3x - 5$
$line\ 2:\ y = 1/3x + 6$

27. $line\ 1:\ 2x + 3y = 5$
$line\ 2:\ 4x + 6y = 7$

28. $line\ 1:\ y = -1/2x - 2$
$line\ 2:\ 8x - 4y = 3$