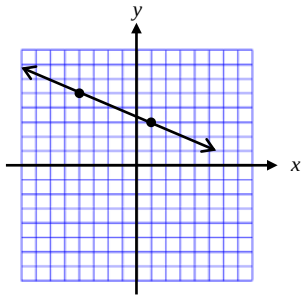
Algebra 2 Name: _____
Point-Slope & Function Notation WS Block: _____

For questions 1 - 4, write the equation of the line in point-slope form.

1. Using the point (15, 32) and a slope = $\frac{5}{2}$.

2. Using the points (–9, 8) and (5, 12).

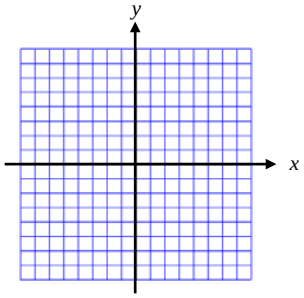
3.



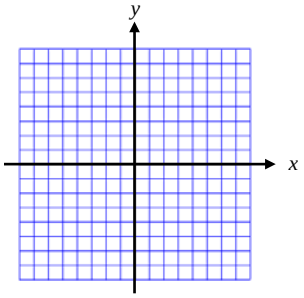
4. Using the points (72, 121) and (51, 198).

For questions 5 - 7, graph each equation on the grids provided.

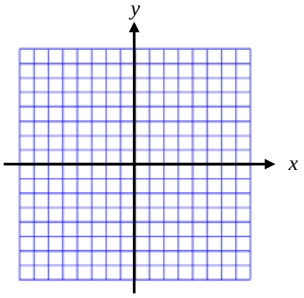
5. $y-3=\frac{2}{3}(x+1)$



6. $y=2+3(x-5)$



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



For questions 8 and 9, let $f(x) = 7(x + 4) – 3$.

8. Find $f(0)$.

9. Find $f(–5)$.

For questions 10 and 11, let $g(x) = 6x – 9$.

10. Find $g(4)$.

11. Find $g(–10)$.

12. A certain substance weighs 0.5 lb/cup. When there are 3 cups of this substance in a jug, the jug weighs 2.25 lbs.
    a) Write an equation that models the weight of the jug, w, with the number of cups of substance in the jug, c.

    b) Find $w(0)$. What does this mean in the context of this problem?

13. There are 2 leaves along a 3 inches of an ivy vine. There are 14 leaves along 15 inches of the same vine.
    a) If the relationship above is linear, write an equation that models this situation.

    b) Use your equation to tell how many leaves are there along 6 inches of the vine?