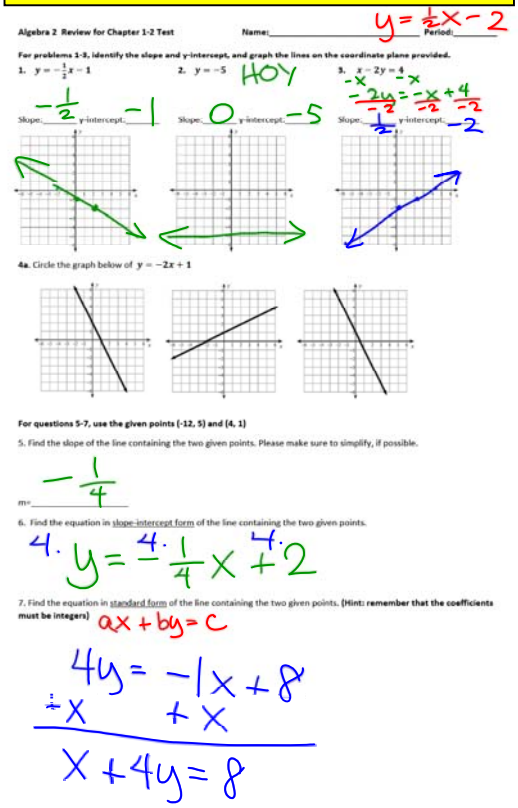
Warm-up: Get review and do #1 - 3



Algebra 2 Review for Chapter 1-2 Test Name: Period:

For problems 1-3, identify the slope and y-intercept, and graph the lines on the coordinate plane provided.

1. $y = -\frac{1}{2}x - 1$ Slope: $-\frac{1}{2}$ y-intercept: -1

2. $y = -5$ HOY Slope: 0 y-intercept: -5

3. $x - 2y = 4$ Slope: $\frac{1}{2}$ y-intercept: -2

4a. Circle the graph below of $y = -2x + 1$

For questions 5-7, use the given points (-12, 5) and (4, 1)

5. Find the slope of the line containing the two given points. Please make sure to simplify, if possible.

$m = -\frac{1}{4}$

6. Find the equation in slope-intercept form of the line containing the two given points.

$y = -\frac{1}{4}x + 2$

7. Find the equation in standard form of the line containing the two given points. (Hint: remember that the coefficients must be integers) $ax + by = c$

$4y = -1x + 8$

$+x \quad +x$

$x + 4y = 8$

Plan for today:

- Complete Around the Room Review
  - turn in completed worksheet
- Work on Ch. 1-2 Test Review

8. What is the equation of a line with a slope of 0 that passes through the point (-1, 4)?

9. What is the equation of a line with a slope of $-\frac{2}{5}$ and y-intercept of 2?

10. What is the slope of a line that passes through the points (2, 7) and (-5, 0)?

11. A plumber charges a $50 fee for a home visit, as well as $20 per hour for service time.

a. Write a linear equation that can be used to represent the cost, y, of hiring a plumber for x hours.

b. What is the cost of hiring the plumber for 4 hours? **(Show your work using your equation from 12a)**

c. How many hours can you hire the plumber for if you wanted to spend exactly $210? **(Show your work using your equation from 11a)**

12. Evaluate the following expression $\frac{(x+2)^2}{2y-10}$ when x = 8 and y = 6

Using order of operations evaluate the following:

13. $5-2[4+(10-3)]$

14. $10+6[4-3(1-5)]$

Solve the following for x:

15. $7x-5=2(x+15)$

16. $-3x+2=-2(4-x)$