Name:	Period:	Date:
Sec1H	Practice Test	Unit 6

Find the distance between each pair of points. Leave answers in simplified radical form when needed.

2.
$$G(0, -2), H(-5, -1)$$
 4. $A(5, 9), B(-7, -7)$ 6. $X(-5, 6), Y(8, -4)$

7. What is the slope of the line that is parallel to a line that has a slope of $\frac{1}{3}$?

8. What is the slope of the line perpendicular to a line that has a slope of $-\frac{2}{3}$?

9. Find the slope of each line. Are the lines parallel?

a. Slope of line 1 = _____

b. Slope of line 2 = _____

- c. Parallel? Yes or No
- **10.** Find the slope of each line. Are the lines perpendicular?
 - a. Slope of line 1 = _____
 - b. Slope of line 2 = _____
 - c. Perpendicular? Yes or No





Write an equation of the line.

11. parallel to y = -2x + 13 with a y-intercept of 8

12. perpendicular to
$$y = \frac{1}{5}x + 6$$
 with a y-intercept of -9

Line j is parallel to the line with the given equation and line j passes through P. Write the equation of line j.

13. y=3x+22, P(-4, 1)

Line k is perpendicular to the line with the given equation and line k passes through P. Write the equation of line k.

14. y = -8x + 11, P(0, -5)

15. Write the equation of the line that passes through (1, -1) and is perpendicular to the line $y = -\frac{1}{2}x + 6$

16. Write the equation of the line that passes through (4, -1) and is parallel to the line $y = -\frac{3}{4}x - 6$.

- 17. Write an equation of the line that passes through (4, 6) and is perpendicular to the line that passes through (6, -6) and (10, -4).
- 18. Write an equation of the line that passes through (-3, 8) and is perpendicular to the line that passes through (-2, 10) and (7, -1).

19. Find the perimeter of the triangle with vertices (-5, -2), (1, 4), (5, 0).

20. Find the perimeter and area of the rectangle with vertices A(-4, -4), B(0, 2), C(9, -4), D(5, -10).



22. Find the perimeter and area for the triangle given by A(-3, 4), B(-2, 1), C(2, 4).

- **23.** Given this circle with an origin of the center and the radius 5, show whether each point is on the circle. (Show work using Pythagorean Theorem.)
 - A. (3, 4)



B. $(\sqrt{4}, \sqrt{20})$

- **24.** Given this circle with an origin at (2, -1) and radius 5, show whether each point is on the circle. (Show work using Pythagorean Theorem.)
 - C. (5, 3)



