

ALGEBRA REVIEW

Directions: Find the distance, midpoint, and slope between the two points.

1.) $(-2, 1)$ & $(7, 13)$

2.) $(4, 2)$ & $(2, 4)$

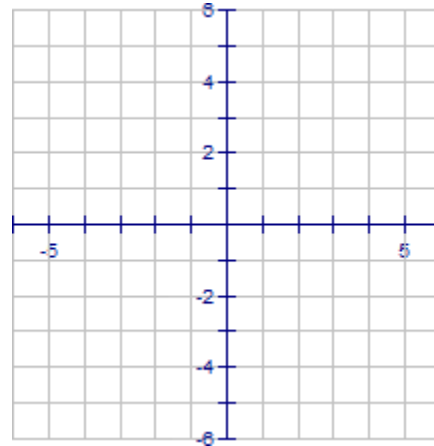
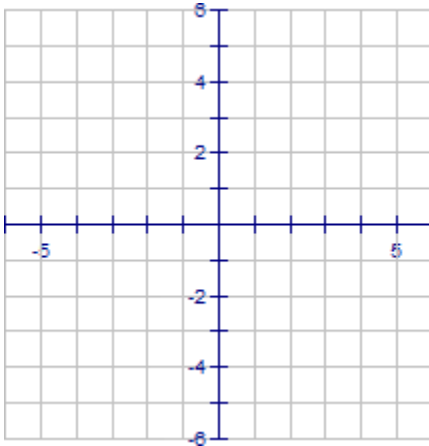
Distance: _____ Midpoint: _____

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Directions: Put the following equations in slope-intercept form and sketch the graph.

3.) $5x - 2y = -2$

4.) $4x + 5y - 20 = 0$



Directions: Find the equation of the line with the given slope passing through the given point.

5.) $m = \frac{1}{2}$ $(2, 3)$

6.) $m = 0$ $(-3, 5)$

7.) $m = -2$ $(3, -4)$

8.) m is undefined $(8, -2)$

Directions: Find the equation of the line with the given slope passing through the given point.

9.) $(2, 3)$ & $(4, 8)$

10.) $(-3, 5)$ & $(2, 5)$

11.) $(4, 1)$ & $(8, 2)$

12.) $(1, -3)$ & $(1, 7)$

Directions: Find the equation of the line parallel to the given line and passing through the given point.

13.) $x - 4y = 12$ $(8, -3)$

14.) $9x + 3y = 15$ $(2, 5)$

Directions: Find the equation of the line perpendicular to the given line and passing through the given point.

15.) $2x + 3y = 12$ $(6, -1)$

16.) $2x - y = 8$ $(-4, 3)$

Directions: Evaluate.

17.) $(2x - 3)(2x + 3)$

18.) $(3x + 5)^2$

19.) $(3x - 9)(2x + 1)$

20.) $(5x - 2)^2$

Directions: Simplify.

21.) $\frac{x^2 - 4}{x - 2}$

22.) $\frac{x^2 - x - 6}{x - 3}$

23.) $\frac{x^3 - 9x}{2x - 6}$

24.) $\frac{2x - 2x^2}{x^3 - 2x^2 + x}$

Directions: Solve.

25.) $x^2 - 2x - 15 = 0$

26.) $5x^2 + 18x - 8 = 0$

27.) $x^2 + 6x + 3 = 0$

28.) $x^3 - 4x = 0$