

## Week 2

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**Solve each proportion.**

1)  $\frac{6}{8} = \frac{n}{n-7}$

**Simplify. Your answer should contain only positive exponents.**

2)  $-2x^3y^4 \cdot -2x^2y^2 \cdot -2xy^2$

3)  $(-2v)^4$

4)  $\frac{-3x^3y^{-3}}{-4x^0}$

**Simplify. Use absolute value signs when necessary.**

5)  $\sqrt{24n^3}$

**Simplify.**

6)  $-2\sqrt{3} + 2\sqrt{12}$

7)  $\sqrt{12} \cdot \sqrt{12}$

8)  $-4\sqrt{10}(-5\sqrt{2} + 4)$

9)  $\frac{\sqrt{8}}{2\sqrt{50}}$

10)  $-\frac{2}{5-\sqrt{5}}$

**Solve each equation.**

11)  $\frac{|a+9|}{5} = 5$

**Solve each equation by completing the square.**

12)  $k^2 - 12k = -24$

**Solve each equation with the quadratic formula.**

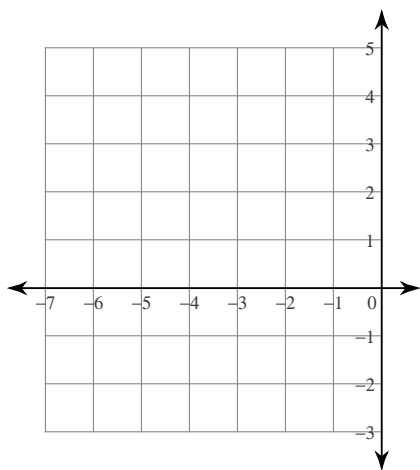
13)  $4p^2 = 13$

**Solve each equation by factoring.**

14)  $x^2 - 11x + 28 = 0$

**Sketch the graph of each function.**

15)  $f(x) = -(x+4)^2 + 3$



**Factor each completely.**

16)  $k^2 + 4k - 5$

17)  $4x^2 + 16x + 16$

**Solve each system by substitution.**

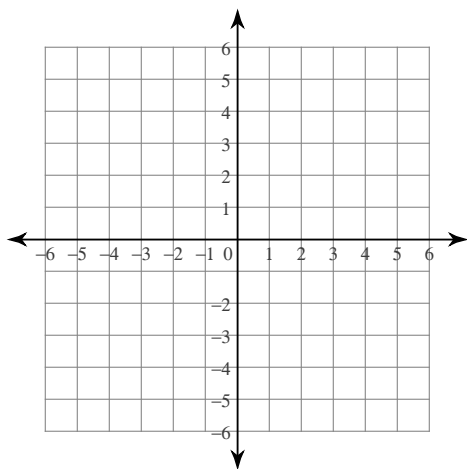
18)  $-x + y = 6$   
 $-x + 4y = 9$

**Write the slope-intercept form of the equation of the line described.**

19) through:  $(3, 2)$ , parallel to  $y = x - 3$

**Sketch the graph of each line.**

20)  $5x + 4y = 8$



## Answers to Week 2 (ID: 1)

1)  $\{-21\}$

2)  $-8x^6y^8$

3)  $16v^4$

4)  $\frac{3x^3}{4y^3}$

5)  $2|n|\sqrt{6n}$

6)  $2\sqrt{3}$

7) 12

8)  $40\sqrt{5} - 16\sqrt{10}$

9)  $\frac{1}{5}$

10)  $\frac{-5 - \sqrt{5}}{10}$

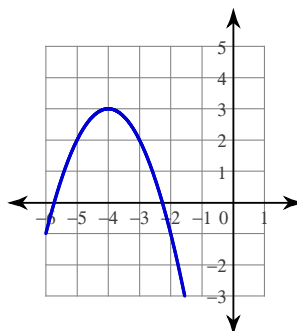
11)  $\{16, -34\}$

12)  $\{9.464, 2.536\}$

13)  $\left\{ \frac{\sqrt{13}}{2}, -\frac{\sqrt{13}}{2} \right\}$

14)  $\{7, 4\}$

15)



16)  $(k-1)(k+5)$

17)  $4(x+2)^2$

18)  $(-5, 1)$

19)  $y = x - 1$

20)

