Station 1: Factor Completely

1. $25x^2 - 81$

2. $x^2 + 8x + 16$

3. $2x^2 - 7x + 6$

4. $12x^2 - 17x - 5$

Station 2: Use the Quadratic Formula to find the x-intercepts

1. $y = 3x^2 - 4x + 5$

2. $y = -x^2 + 3x - 1$

3. $y = 2x^2 - 3x - 1$

4. $y = -2x^2 + 2x - 3$

Station 3: Converting Forms

1. Convert to Vertex form: $y = -2x^2 + 4x - 3$

2. Convert to Standard form: $y = 2(x - 3)^2 - 3$

3. Convert to Standard form: $y = (x + 2)(x - 3)$

4. Convert to Vertex form: $y = 3x^2 - 2x - 1$

Station 4: Simplify the following radical expressions

1. $2\sqrt{8} + 5\sqrt{2} + 6\sqrt{27}$

2. $-3\sqrt{72} + 4\sqrt{32}$

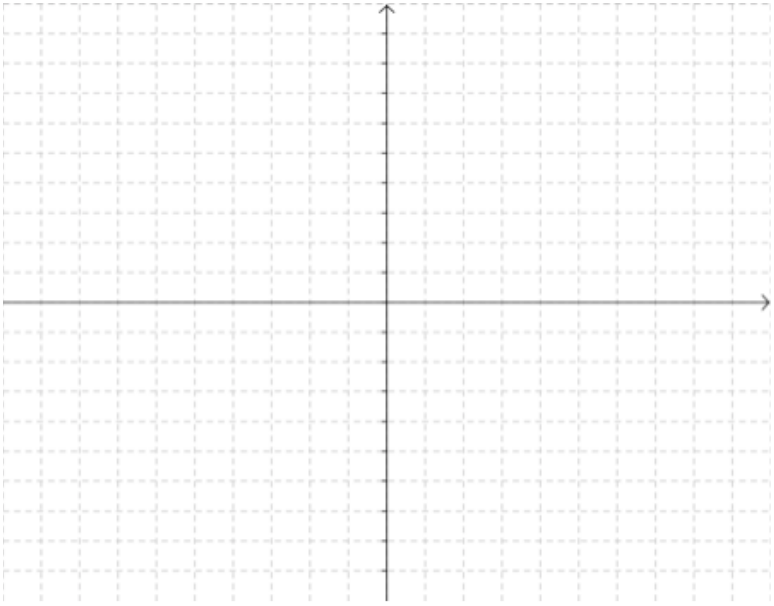
3. $\sqrt{-8} + \sqrt{-2}$

4. $-3\sqrt{-16} + 5\sqrt{-1} + 6\sqrt{4}$

Station 5: Graphing

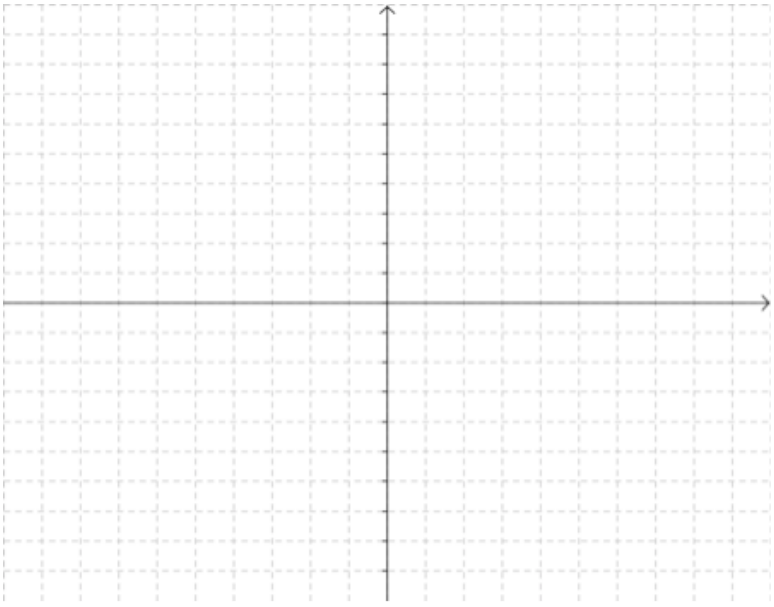
1. Describe the graph. Does it open up or down, is it wide or narrow and explain how you know this. Then, graph the equation.

$y = -2(x + 3)^2 - 3$



2. Describe the graph. Does it open up or down, is it wide or narrow and explain how you know this. Then, graph the equation.

$y = \frac{1}{2}x^2 - 3x + 2$



Station 6: Solve the following

By Factoring:

1. $16x^2 - 9 = 0$

2. $x^2 - 10x = -25$

By Square roots (leave your answer in simplest radical form.

3. $-4x^2 + 2 = -14$

4. $75 = -x^2$