

## Monday

Convert from Standard Form to Vertex form. Write each step out using words.

$$f(x) = -3x^2 - 6x + 1$$

## Tuesday

Find the remainder when  $f(x) = 2x^5 - x^3 + 17x^2 - 8$  is divided by  $(x + 5)$ . Write out an explanation of your method.

## Wednesday

Write the equation for a circle whose center is  $(-3,1)$  and radius measures 5 *inches*. Write out the method you used to derive the equation.

## Thursday

**Solve this system of quadratic inequalities. Write an explanation of your method. {Be sure to graph each parabola and shade the appropriate region}**

$$y \leq 2x^2 - 9x + 8$$

$$y > -x^2 - 6x - 4$$

## Friday

**Write a polynomial function with the following zeros:**

$$4, -\frac{1}{2}, 5 + i$$