

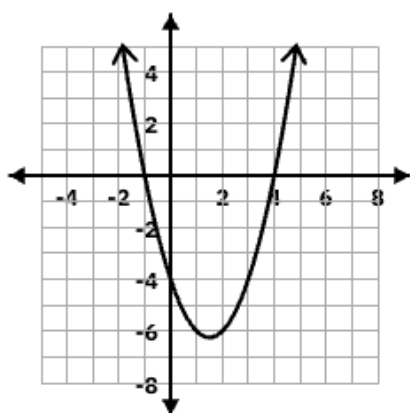
<p>Review of factoring:</p> <p>a) $4x^2 - 9$</p> <p>b) $x^3 - 27$</p> <p>c) $8x^3 + 125$</p>	<p>Review: Operations with square roots.</p> <p>a) $(7\sqrt{3} - 5\sqrt{6})(\sqrt{2} + 3)$</p> <p>b) $\frac{7}{2+\sqrt{3}}$</p>
<p>Review: Solve the quadratic EQ by factoring:</p> <p>a) $4x^2 - 5x - 6 = 0$</p>	<p>Review: Solve the radical equation. Sometimes you get an answer that is extraneous, so you will need to check your answers when you solve a radical equation</p> <p>a) $\sqrt{x + 30} = x$</p> <p>b) $\sqrt[3]{2x - 9} - 1 = 2$</p>

EX 1. Solve the quadratic INEQUALITY

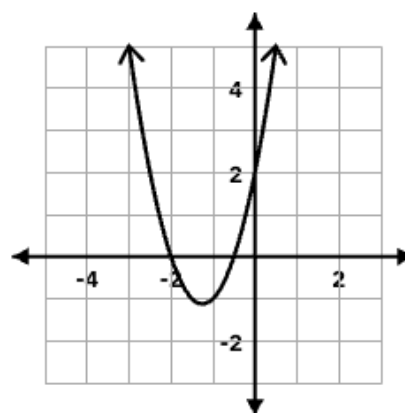
$$x^2 - 3x - 4 < 0$$

Ex 2. Solve the quadratic INEQUALITY

$$2x^2 + 2 > -5x$$



Where is the graph below the x-axis?



Where is the graph above the x-axis?

1. Solve the Quadratic Inequality.

$$x^2 + 10x + 9 < 0$$

2. Solve the Quadratic Inequality.

$$x^2 - 11x \geq -28$$

3. Solve the Quadratic Inequality.

$$3x^2 - 13x > -10$$

4. Solve the Quadratic Inequality. (hint: you will need to remember how to factor problems with two terms. We did it in the notes today)

$$4x^2 < 25$$

5. Factor

a) $64x^3 - 343$

b) $t^3 + 1000$

6. Solve the radical equation.

$$x - 6 = \sqrt{3x}$$

7. Solve the radical equation

$$\sqrt{2x + 7} = x + 4$$

8. Solve the equation by using square roots.

$$-2x^2 + 1 = -6$$

9. Find the zeros of the function.

$$f(x) = x^2 - 8x$$

10. What did I do wrong in this problem?? Find and correct my mistake.

$$\sqrt[3]{3x - 8} = 4$$

$$(\sqrt[3]{3x - 8})^3 = 4$$

$$3x - 8 = 4$$

$$3x = 12$$

$$x = 4$$