

Question of the Day

If you had to replace your legs with those of an animal, which animal and why?

On the Docket

Concept Review: Quadratic Inequalities

Quiz

Concept Check-In

Quadratic Inequalities

Equation 1

$$x^2 + 3 < 0$$

What does a plot of the graph look like?

What is the discriminant?

Does this expression have a solution?

Equation 2

$$3x^2 + 14 \leq 23x$$

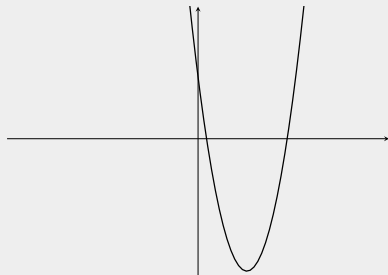
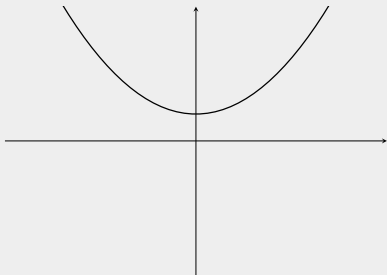
Does this expression have a solution?

Can this expression be factored? If so, what are its factors?

What are the zeroes of this expression?

For what values of x is this positive? Negative?

Quadratic Inequalities



Solve the following quadratic inequality:

$$2x^2 \geq 5x + 3$$

Concept Check-In

Given an arbitrary polynomial

$$p(x) = a_n x^n + a_{n-1} x^{n-1} + \cdots + a_2 x^2 + a_1 x + a_0$$

describe, in your own words,

$a_n, a_{n-1}, \dots, a_2, a_1, a_0.$ “ $+\cdots+$ ”.

$x^n, x^{n-1}, \dots, x^2, x.$ $n, n-1, \dots, 2, 1, 0.$

What combinations of a , x and n would we need to pick for

$$p(x) = 4x^3 + 2x ?$$

If $p(r) = 0$, what could we call r ?

What does the “multiplicity” of r mean?

What are “turning points” of p and what can be said about them?