

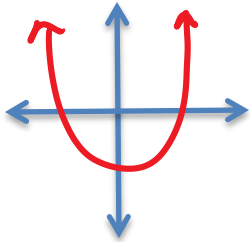
Target 9.7:
Discriminant



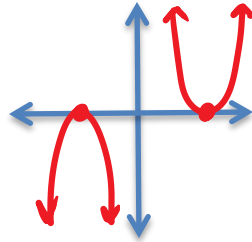
Sketch the following:

A quadratic equation with ...

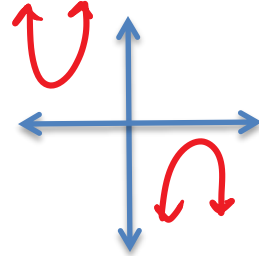
2 solutions



1 solution



0 solutions



Find the discriminant of the equation, state how many solutions, and sketch the graph.

$x^2 = 5 - 4x$ $x^2 + 4x - 5 = 0$

Discriminant:

$$(4)^2 + -4(1)(-5)$$

$$16 + 20$$

$$36$$

Solutions: **2**

$x^2 + 5x = -10$ $x^2 + 5x + 10 = 0$

Discriminant:

$$(5)^2 + -4(1)(10)$$

$$25 + -40$$

$$-15$$

Solutions: **0**

$x^2 - 6x = -9$ $x^2 - 6x + 9 = 0$

Discriminant:

$$(-6)^2 + -4(1)(9)$$

$$36 - 36$$

$$0$$

Solutions: **1**

