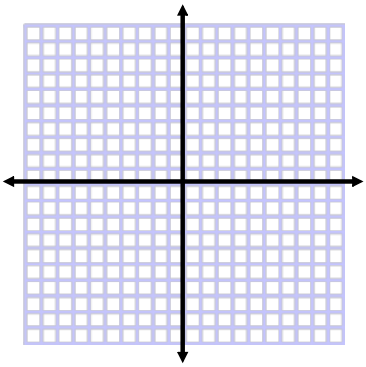
Sec 4.3
Solving Polynomial Inequalities

You can have a polynomial inequality but it becomes more difficult to determine a solution.

$$x^2 - x - 2 < 0$$

Need to find the values where the product is negative.



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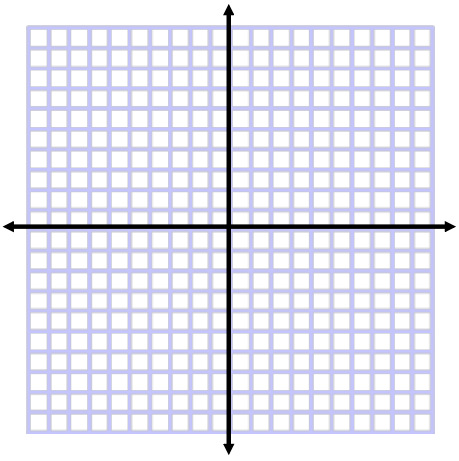
If you had a cubic it becomes even more difficult.

$$2x^3 + 3x - 17x + 12 > 0$$

$$(x-1)(2x-3)(x+4) > 0$$

Zeros are x=1, x=3/2, x=-4



Sketch.
What parts are above zero?

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You can also solve this with an interval strategy.

$$(x-1)(2x-3)(x+4)>0$$

Zeros are x=-4, x=1, x=3/2

Intervals are:

Interval	$x<-4$	$-4<x<1$	$1<x<\frac{3}{2}$	$x>\frac{3}{2}$

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