Name Key

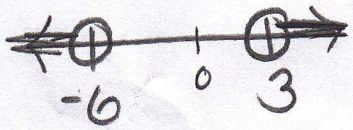
1. What is the solution set of the inequality $x^2 + 3x - 10 > 8$?

1) $\{x | -6 < x < 3\}$
2) $\{x | x < -6 \text{ or } x > 3\}$
3) $\{x | -3 < x < 6\}$
4) $\{x | x < -3 \text{ or } x > 6\}$

$x^2+3x-18>0$

$(x+6)(x-3)$

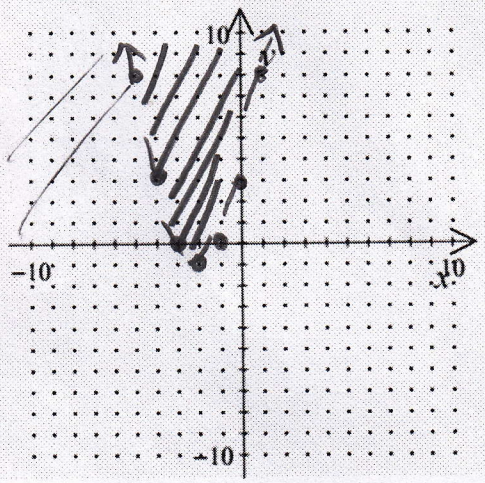
$x=-6, 3$



$0^2+3(0)-10>8$

$-10 \not> 8$

2. Graph: $y > x^2 + 4x + 3$



$0 > 0^2+4(0)+3$

$0 \not> 3$

3 Explain how to determine whether to shade above or below the curve when graphing a quadratic inequality. Include examples.

Test a point, if it works shade that area, if not shade the other area.

4. Which inequality is represented by the graph below?

open circles

1) $x^2 - 2x - 15 > 0$
2) $x^2 - 2x - 15 < 0$
3) ~~$x^2 - 2x - 15 \leq 0$~~
4) ~~$x^2 + 2x - 15 < 0$~~

$0^2-2(0)-15$

$-15<0$

$(x+3)(x-5)$

$x^2-5x+3x-15$

$x^2-2x-15$