

overlapping values so  $-2 < x < 6.5$

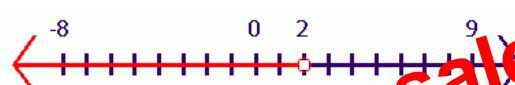
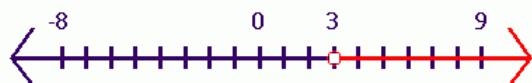
$$x - 5 > 1 - x \text{ and } 15 - 3x > 5 + 2x$$

$$x - 5 > 1 - x \quad 15 - 3x > 5 + 2x$$

$$x > 6 - x \quad 10 - 3x > 2x$$

$$2x > 6 \quad 10 > 5x$$

$$x > 3 \quad 2 > x \text{ or } x < 2$$



no overlapping values so  $x > 3, x < 2$

## Quadratic inequalities

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$$9 - x^2 > 0$$

$$f(x) = 9 - x^2$$

$$f(x) > 0$$

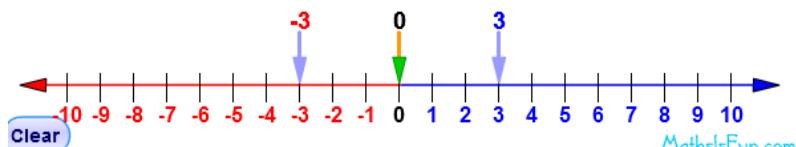
### Critical Values

$$9 - x^2 = 0$$

$$(3 + x)(3 - x) = 0$$

$$x = 3 \text{ and } x = -3$$

### Sign chart



### Test Values

$$f(x) = 9 - x^2$$