

Algebra Square root

$$+\sqrt{9} = 3$$

$$+\sqrt{25} = 5$$

$$\sqrt{\frac{1}{4}} = \frac{1}{2}$$

$\sqrt{a^2} = |a|$, has to be positive

$$\sqrt{(x-3)^2} = |x-3|$$

We know that $a^2 \geq 0$

But a can be negative

$$|x-3| \geq 2$$

$$\begin{array}{l} \downarrow \qquad \searrow \\ x-3 \leq -2 \qquad x-3 \geq 2 \\ x \leq 1 \qquad \qquad x \geq 5 \end{array}$$

