

# Inequalities on a Graph

When plotting **inequalities on a graph**, you may be asked to shade regions on the graph to satisfy one or more inequalities.

A **dashed line** means the line is **not included** ( $</>$ )

A **solid line** means the line is **included** ( $\leq / \geq$ )

 **Example**

$$-2 < x \leq 3$$

We use a **dashed** line for  $x = -2$  and shade the region to the **right** of the line because we want the  $x$  values greater than  $-2$

We use a **solid** line for  $x = 3$  and shade the region to the **left** of the line because we want the  $x$  values less than or equal to  $3$

