

Maths

# Shade in the Region Defined by Several Inequalities

Miss Davies

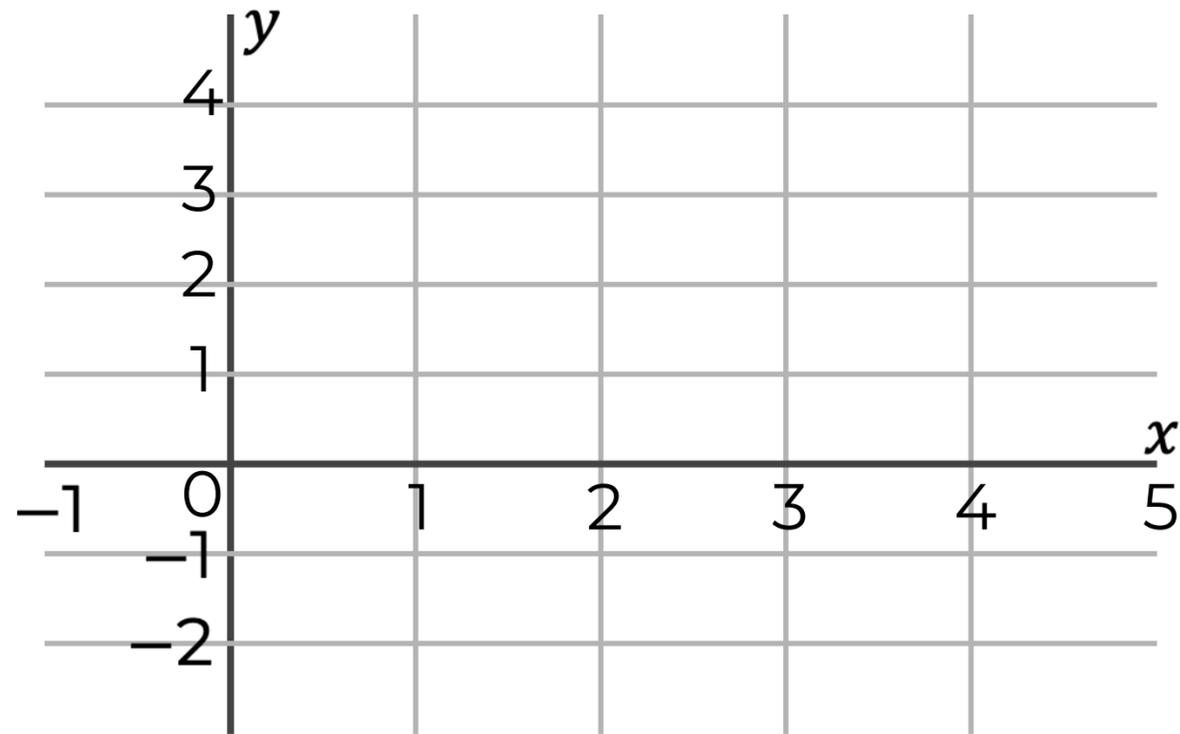
**Please note some slides do have colour images on them**



# Representing inequalities on a coordinate grid

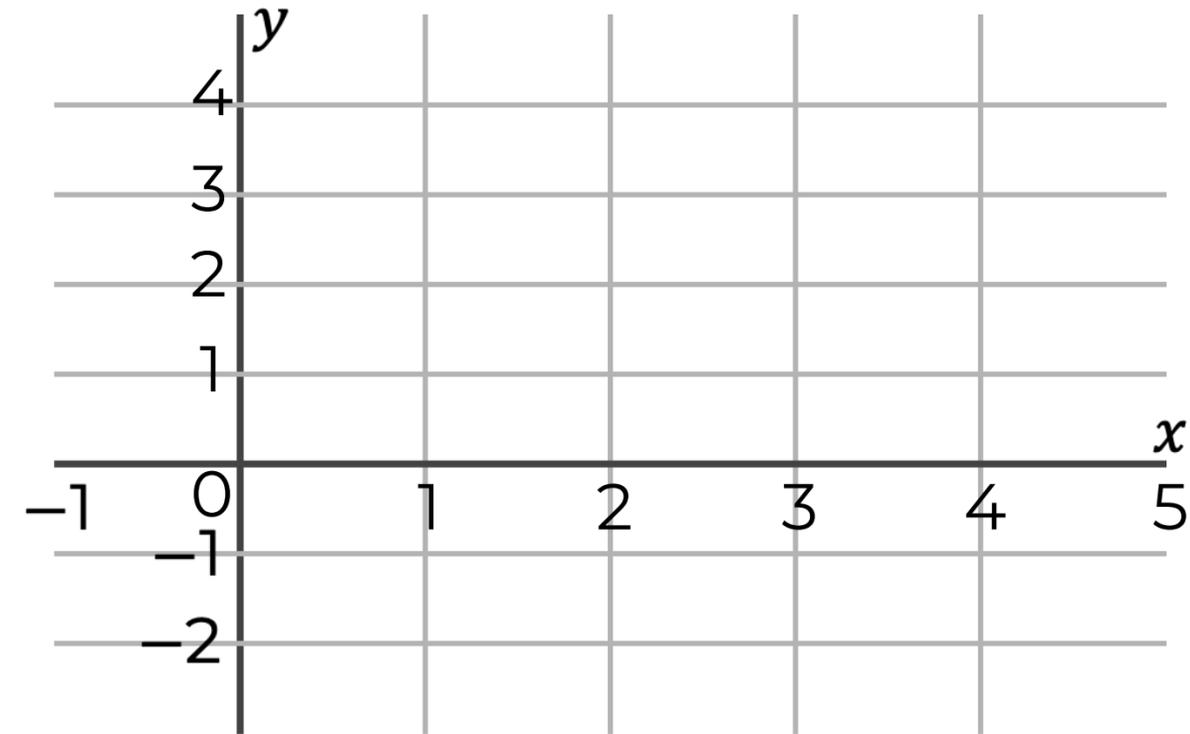
1. Shade the region that satisfies both of the inequalities

$$y \leq \frac{1}{2}x + 1 \text{ and } x > 2$$



2. Shade the region that satisfies both of the inequalities.

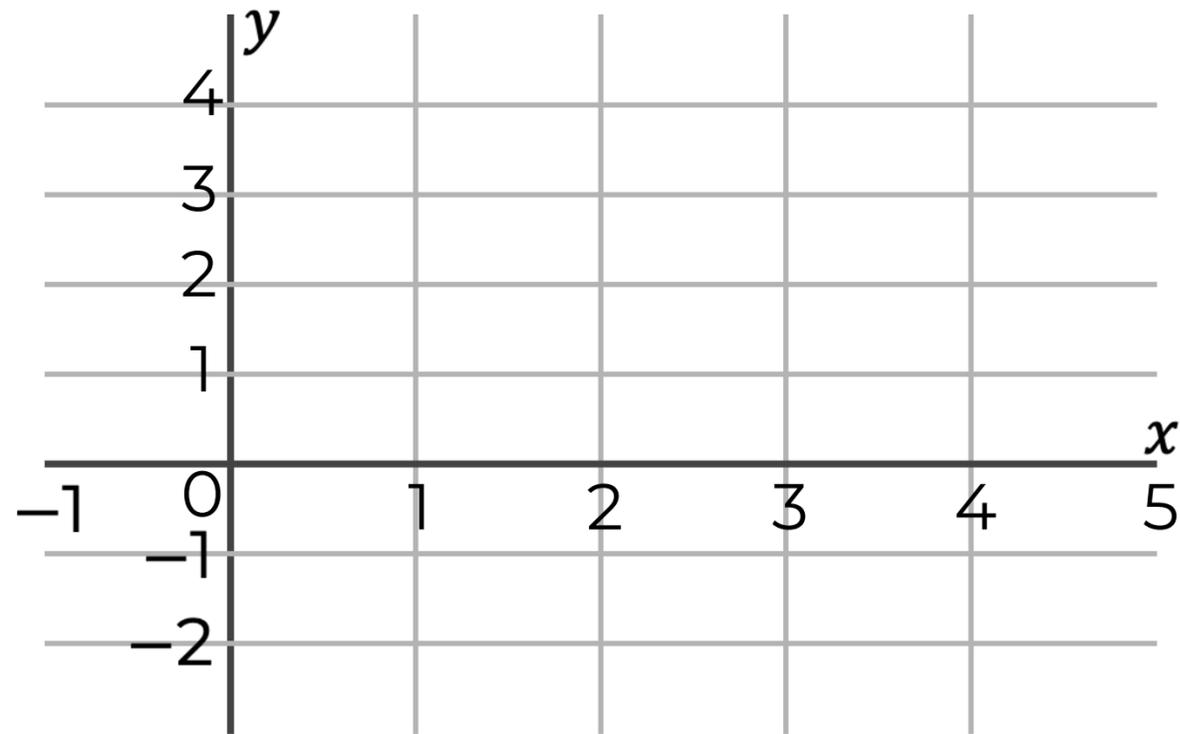
$$y < -x + 3 \text{ and } y < 2$$



# Representing inequalities on a coordinate grid

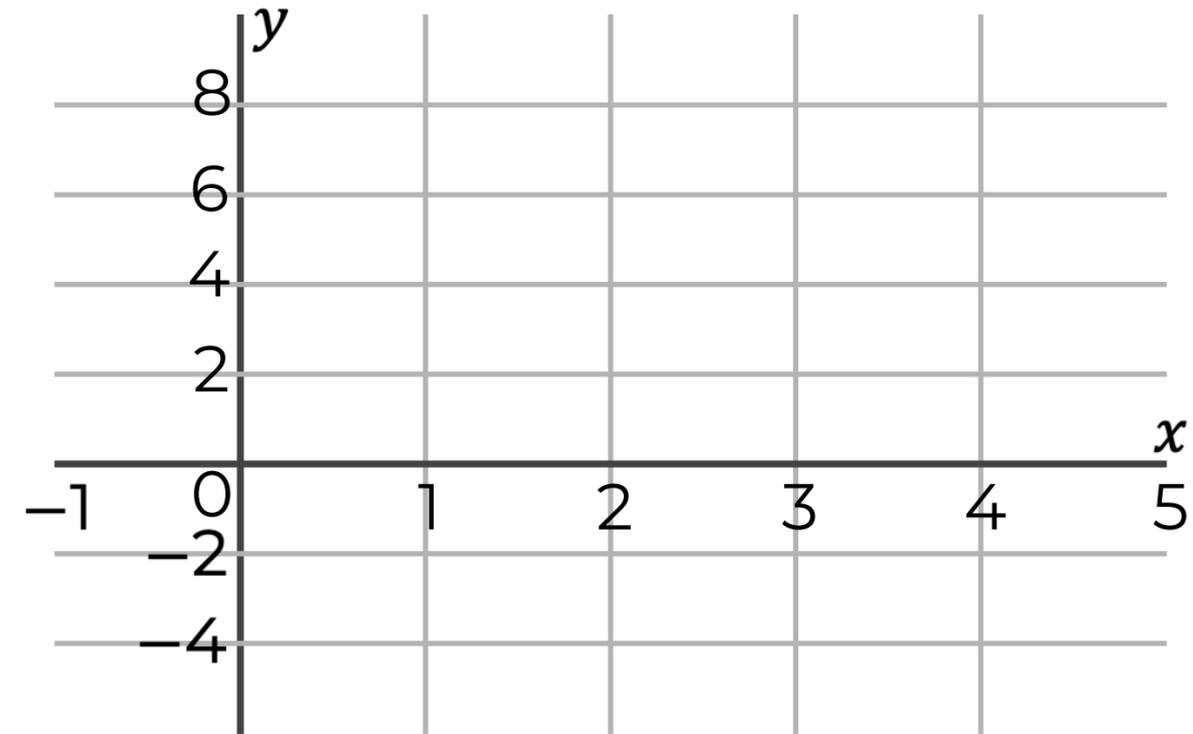
3. Shade the region that satisfies both of the inequalities.

$$y \geq -x + 2 \text{ and } y < 2x + 1$$



4. Shade the region that satisfies all of the inequalities.

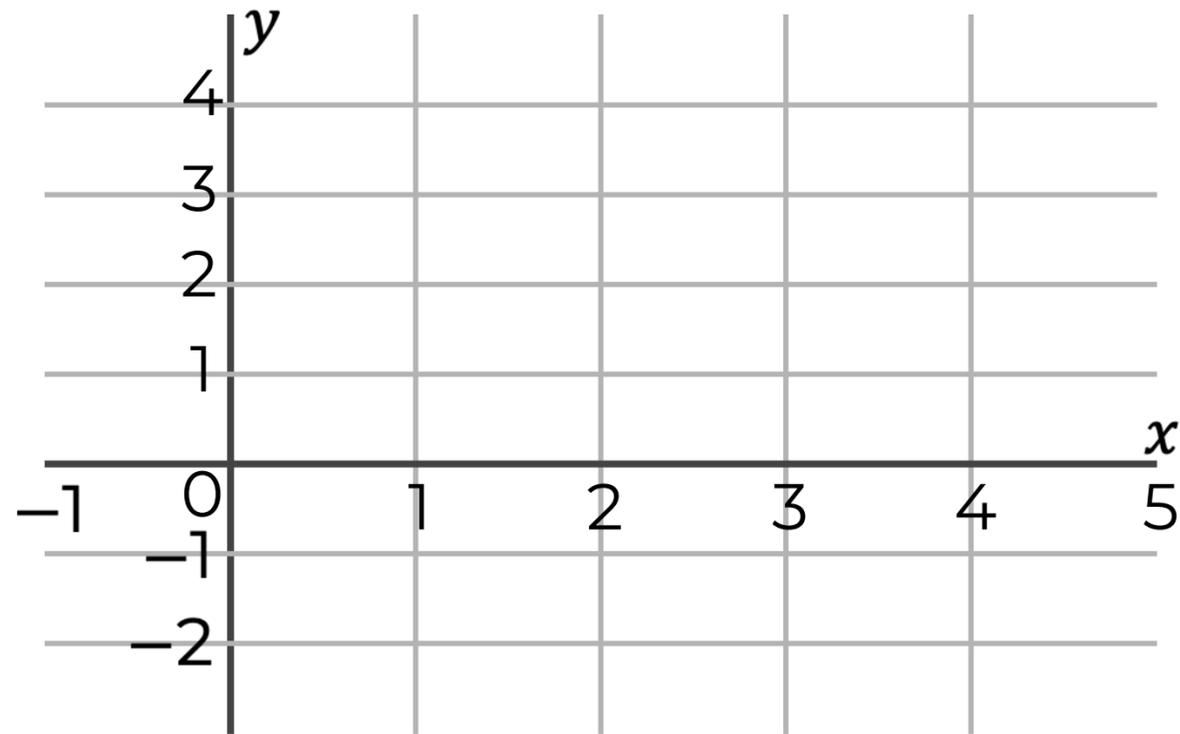
$$y > -6x + 8 \quad y \leq 8 \quad x > 1$$



# Representing inequalities on a coordinate grid

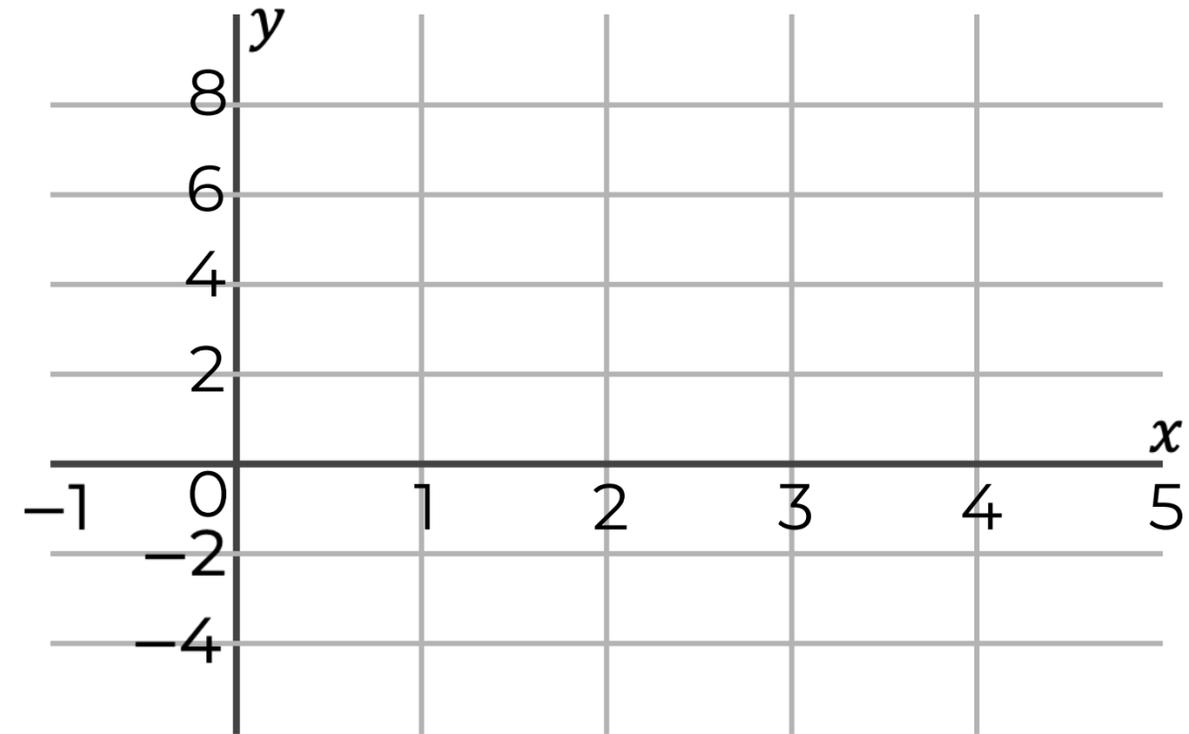
5. Shade the region that satisfies all of the inequalities.

$$\frac{1}{2}y + \frac{1}{2}x > 1 \quad y \leq x \quad x < 4$$



6. Shade the region that satisfies all of the inequalities.

$$y > -4x \quad y \geq 2x - 4 \quad 0 > x + y$$



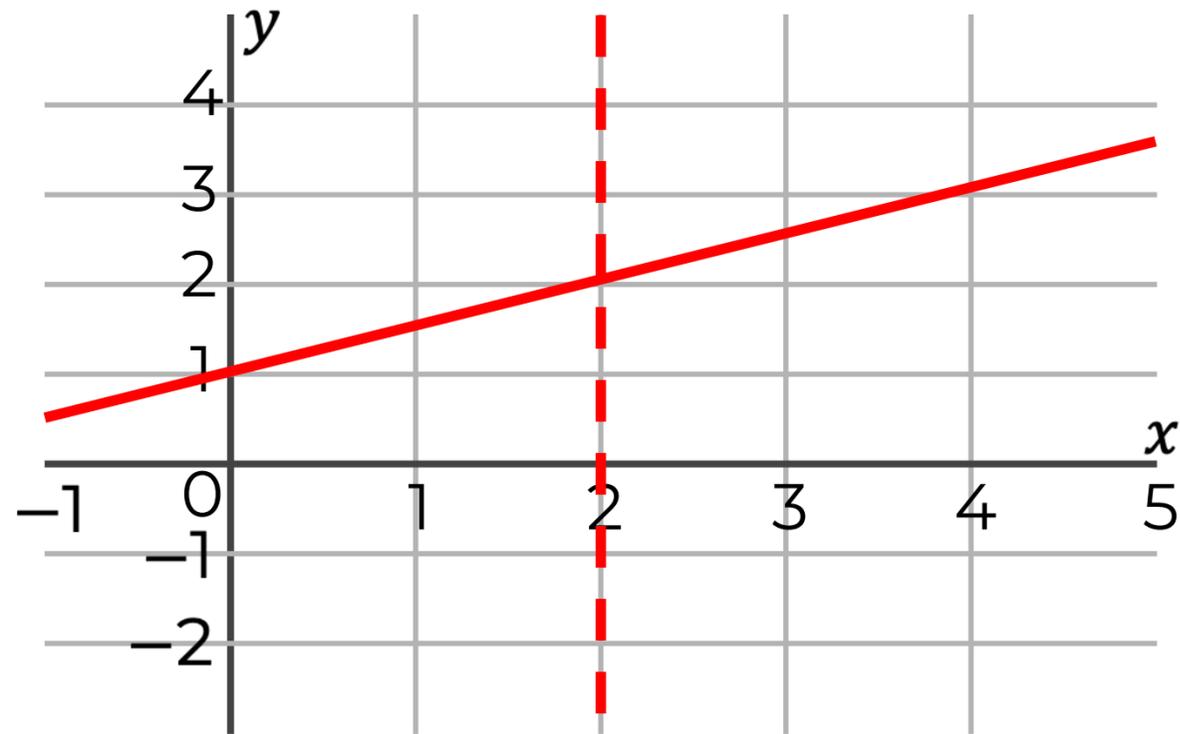
# Answers



# Representing inequalities on a coordinate grid

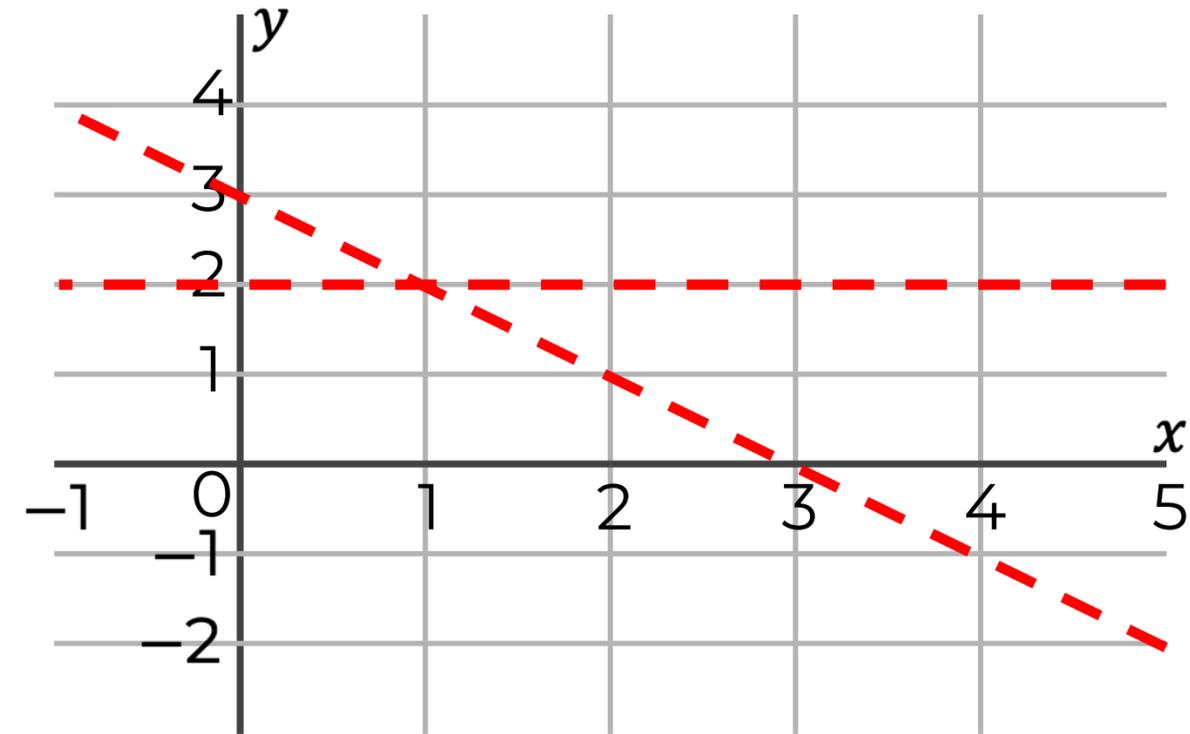
1. Shade the region that satisfies both of the inequalities

$$y \leq \frac{1}{2}x + 1 \text{ and } x > 2$$



2. Shade the region that satisfies both of the inequalities.

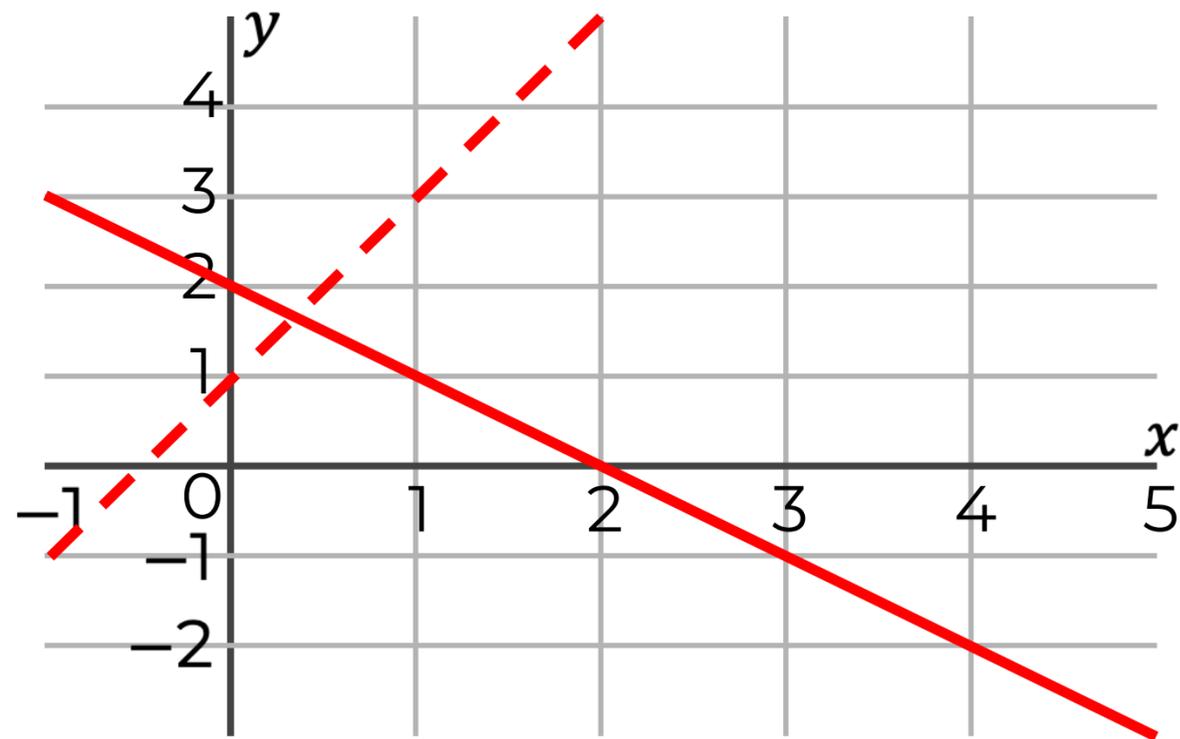
$$y < -x + 3 \text{ and } y < 2$$



# Representing inequalities on a coordinate grid

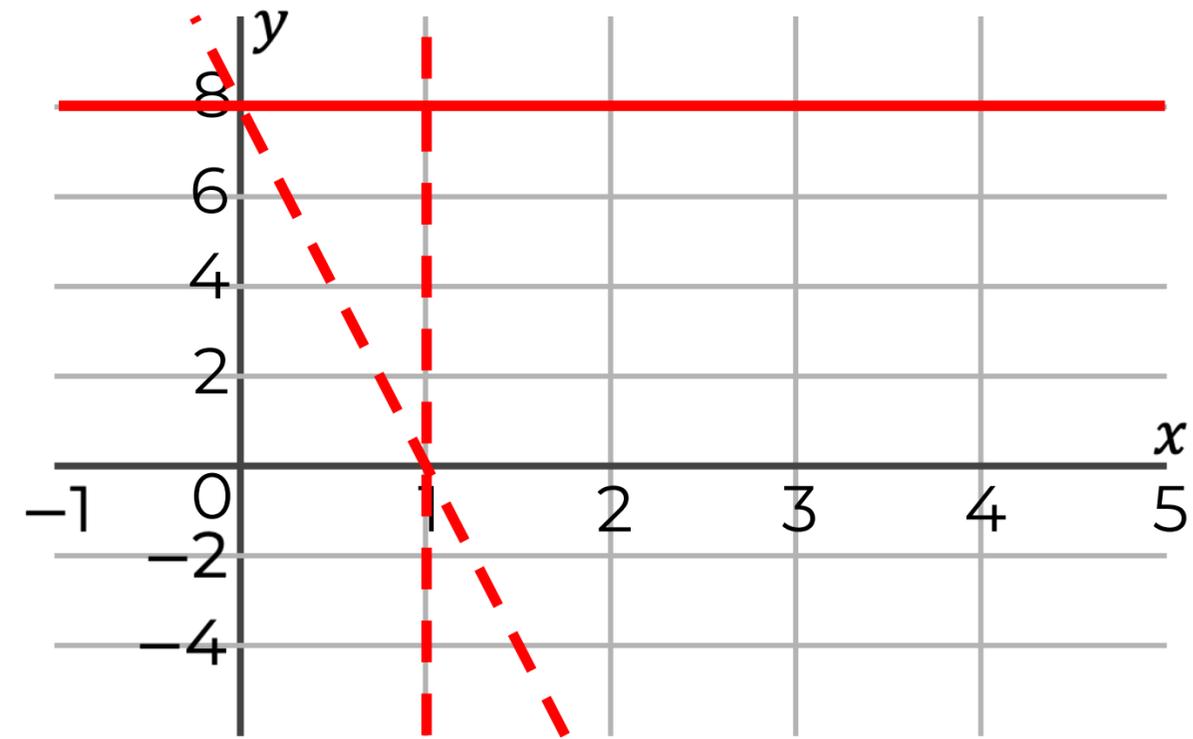
3. Shade the region that satisfies both of the inequalities.

$$y \geq -x + 2 \text{ and } y < 2x + 1$$



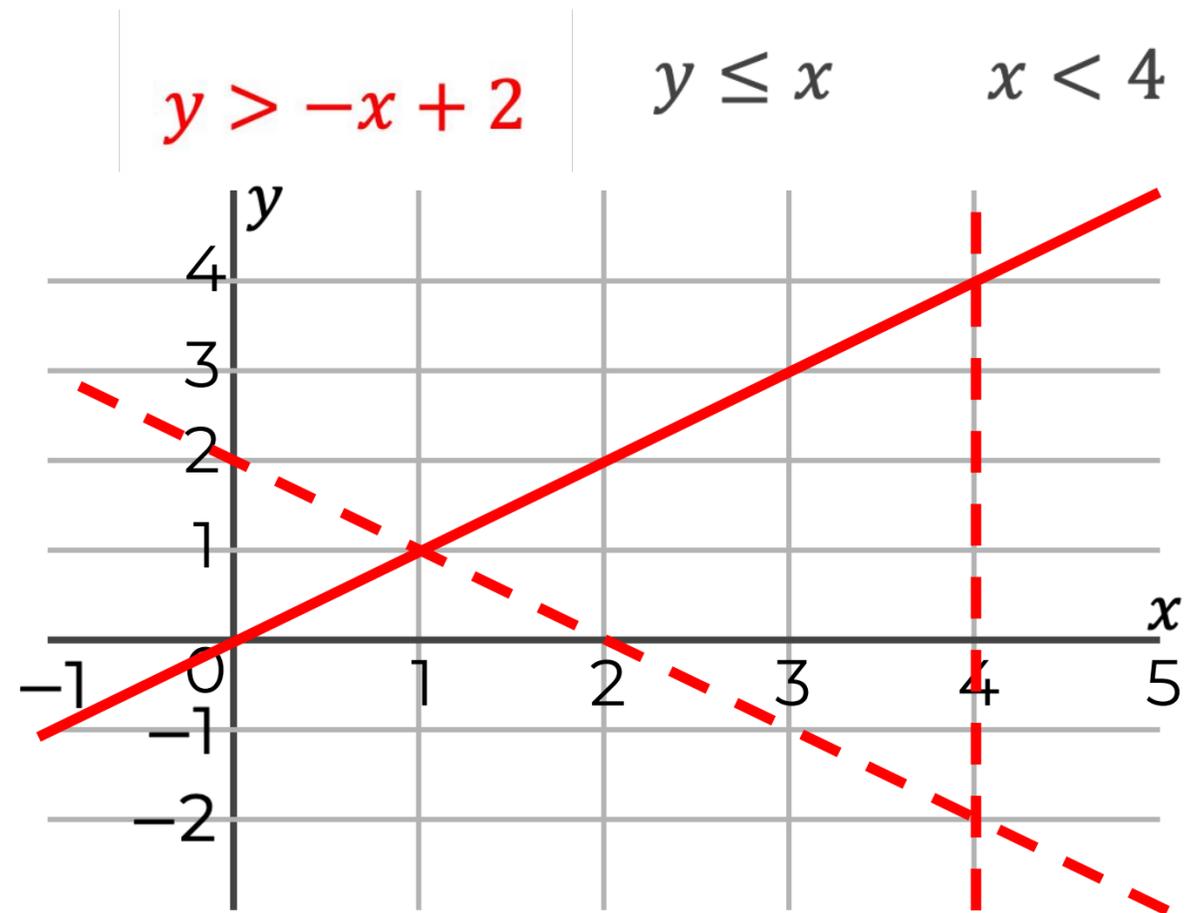
4. Shade the region that satisfies all of the inequalities.

$$y > -6x + 8 \quad y \leq 8 \quad x > 1$$



# Representing inequalities on a coordinate grid

5. Shade the region that satisfies all of the inequalities.



6. Shade the region that satisfies all of the inequalities.

