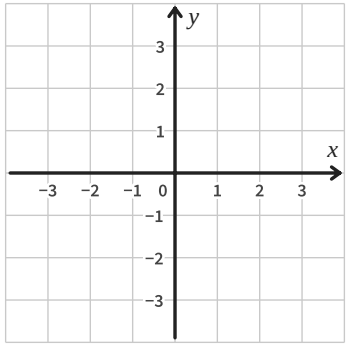
# Inequalities and regions: one inequality

**1**

Show $x \leq 2$ on the grid.

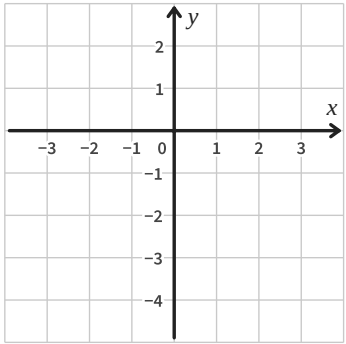



**Solid**

**(0, 0): 0 ≤ 2. True.**

**2**

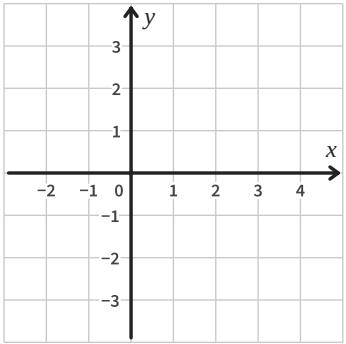
Show $y > -3$ on the grid.




**Dashed**

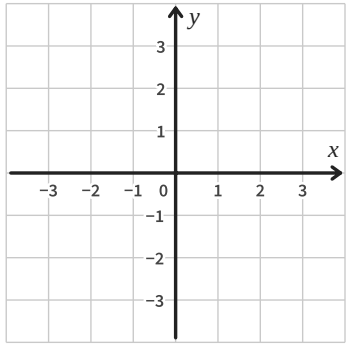
**3**

Show $x > 1$ on the grid.



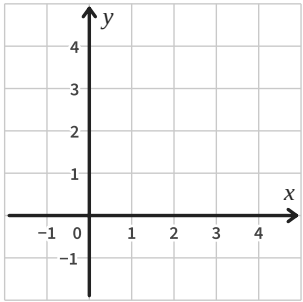

**4**

Show $y \leq 2x + 2$ on the grid.



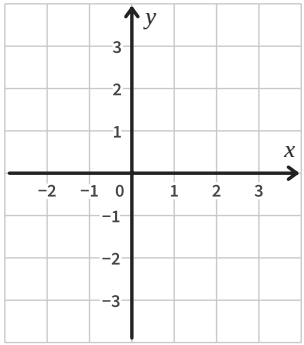

**5**

Show $y > 3 - x$ on the grid.



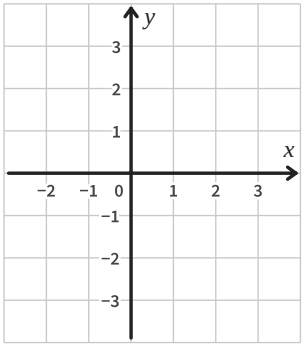

**6**

Show $y < 2x$ on the grid.



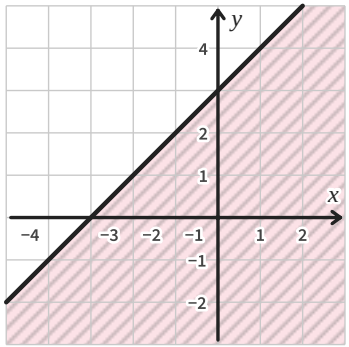

**7**

Show $y \geq 3x - 2$ on the grid.




**8**

Kai shows $y > x + 3$ with a solid line and shades the side with (0, 0).
Explain his two mistakes.



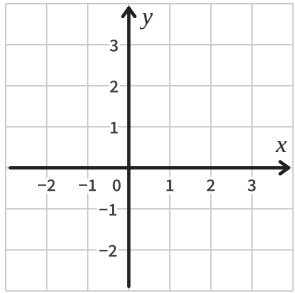

**1:**

**2:**

# Inequalities and regions: one inequality *further practice*

**9**

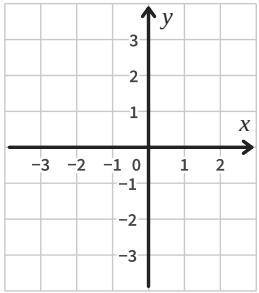
Show $y \geq 1 - 2x$ on the grid.




**Answer** _____

**10**

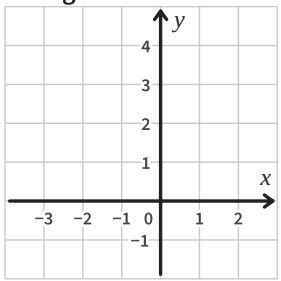
Show $y > -2x - 1$ on the grid.




**Answer** _____

**11**

Ama tests the point (1, 3) to show $y \geq x + 2$. Why can she not use it? Shade the region.




**Answer** _____

**12**

Is the point (2, 5) in the region $y > 2x + 1$? Show how you know.

**Answer** _____

**13**

Which of these points are in the region $x + 2y \leq 6$: (1, 2), (0, 3), (4, 2), (−2, 5)?

**Answer** _____

**14**

Sam says the region $x > 3$ is above the line $x = 3$. Explain his mistake.

**Answer** _____

**15**

Lena says the point (3, 2) is in the region $y \geq 2x - 4$ because it is above the line. Is she right? Explain.

**Answer** _____

**16**

Write down an inequality whose region contains (2, 1) but not (−1, 1).

**Answer** _____