

## 3.7) Regions

## Worked example

Shade the region that satisfies the inequalities:

$$4y + x \leq 12$$

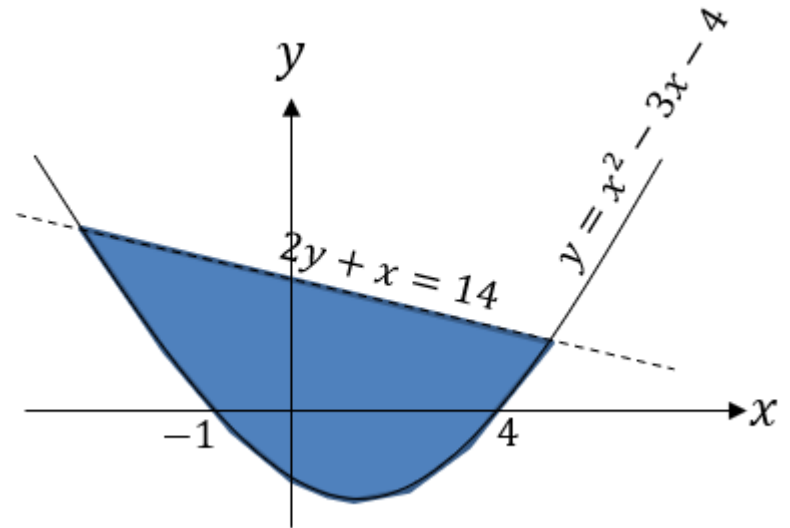
$$y > x^2 - 5x - 6$$

## Your turn

Shade the region that satisfies the inequalities:

$$2y + x < 14$$

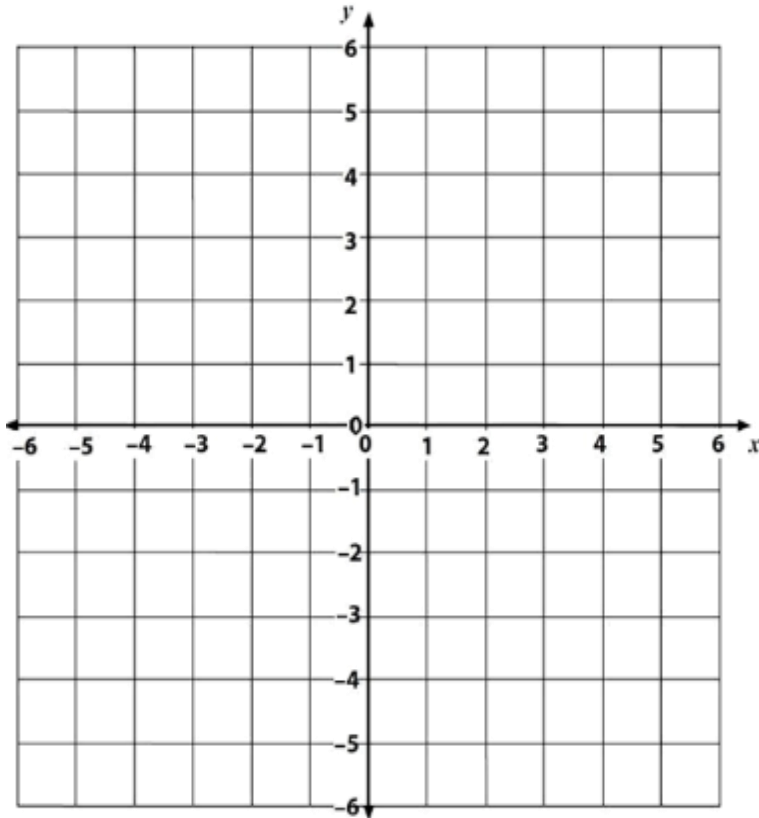
$$y > x^2 - 3x - 4$$



## Worked example

Shade the region which satisfies the inequalities. Label it R.

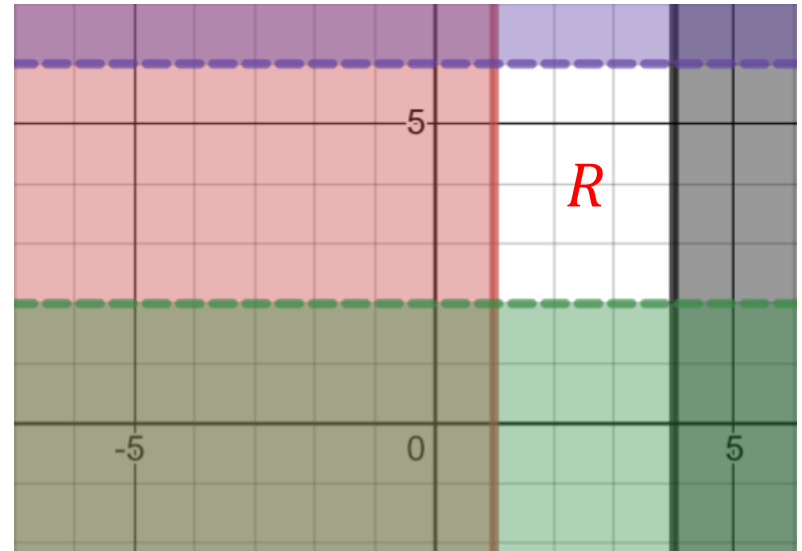
$$2 \leq x \leq 5 \text{ and } 1 < y < 3$$



## Your turn

Shade the region which satisfies the inequalities. Label it R

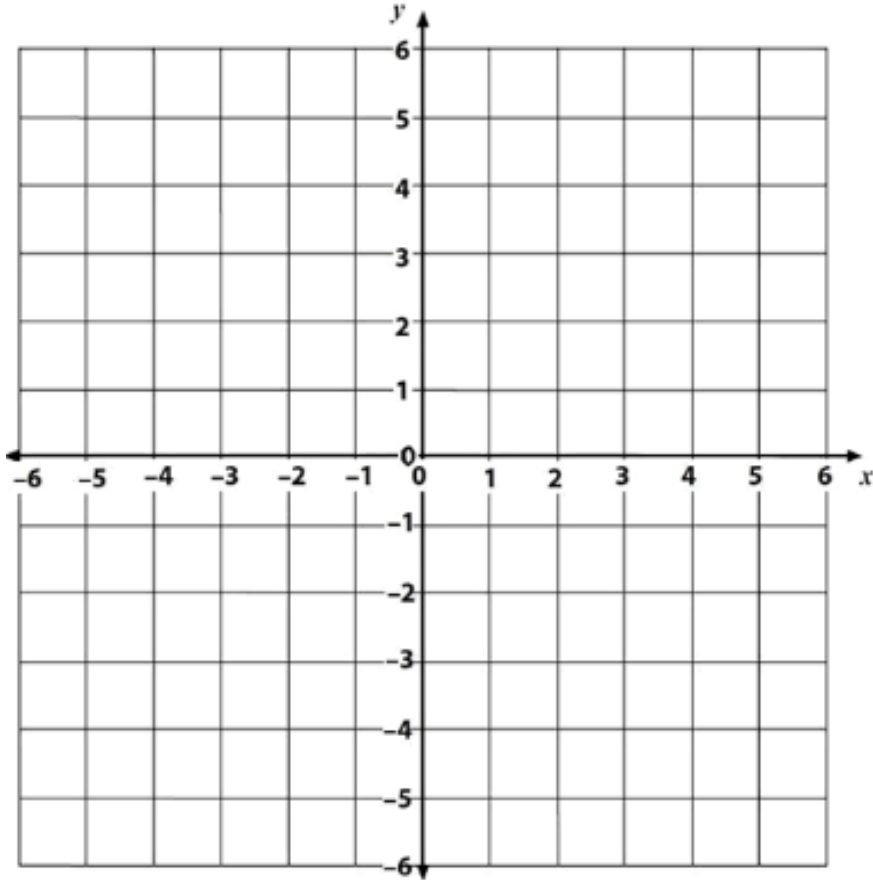
$$1 \leq x \leq 4 \text{ and } 2 < y < 6$$



## Worked example

Shade the region which satisfies the inequalities. Label it R

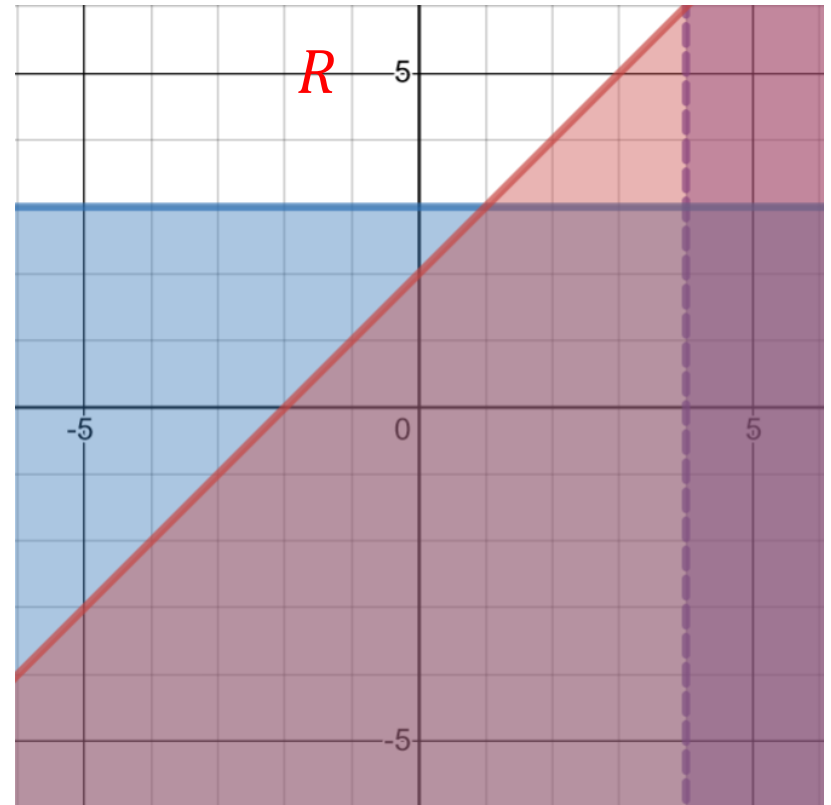
$$x \leq 3, y > 1 \text{ and } y \geq x + 3$$



## Your turn

Shade the region which satisfies the inequalities. Label it R.

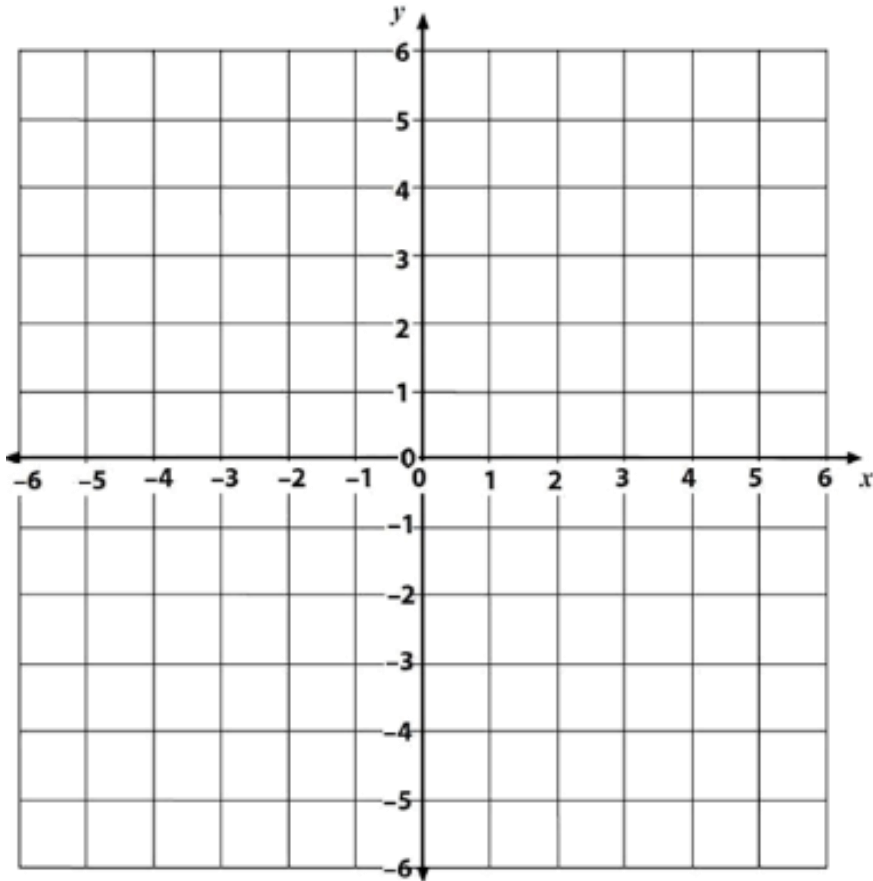
$$x < 4, y \geq 3, y \geq x + 2$$



## Worked example

Shade the region which satisfies the inequalities:

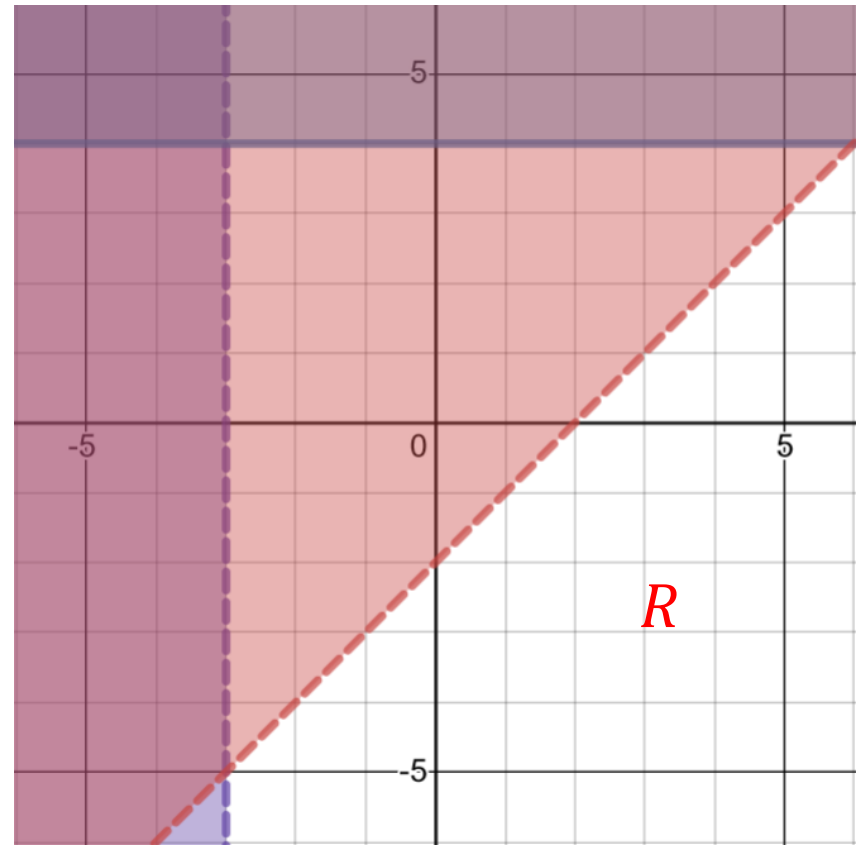
$$x \geq -2, y < 1 \text{ and } y < x - 1$$



## Your turn

Shade the region which satisfies the inequalities. Label it R.

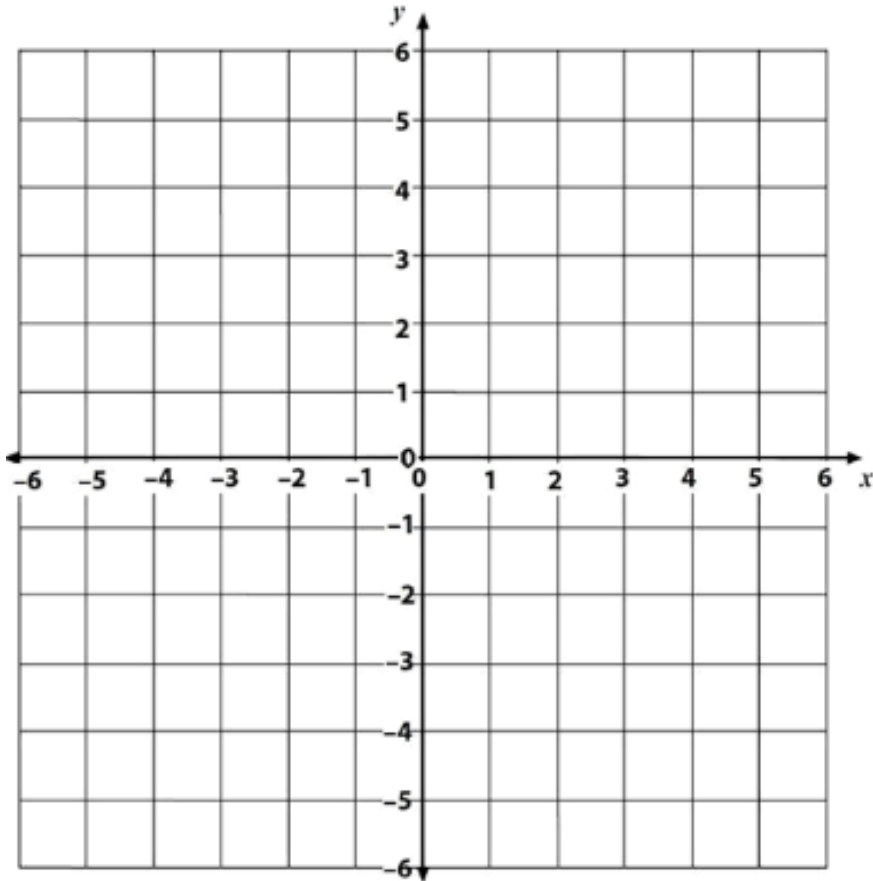
$$x > -3, y \leq 4 \text{ and } y < x - 2$$



## Worked example

Shade the region which satisfies the inequalities:

$$x \geq 2, y > -1 \text{ and } x + y \leq 5$$



## Your turn

Shade the region which satisfies the inequalities. Label it R.

$$x \geq 2, y > 1 \text{ and } x + y \leq 6$$

