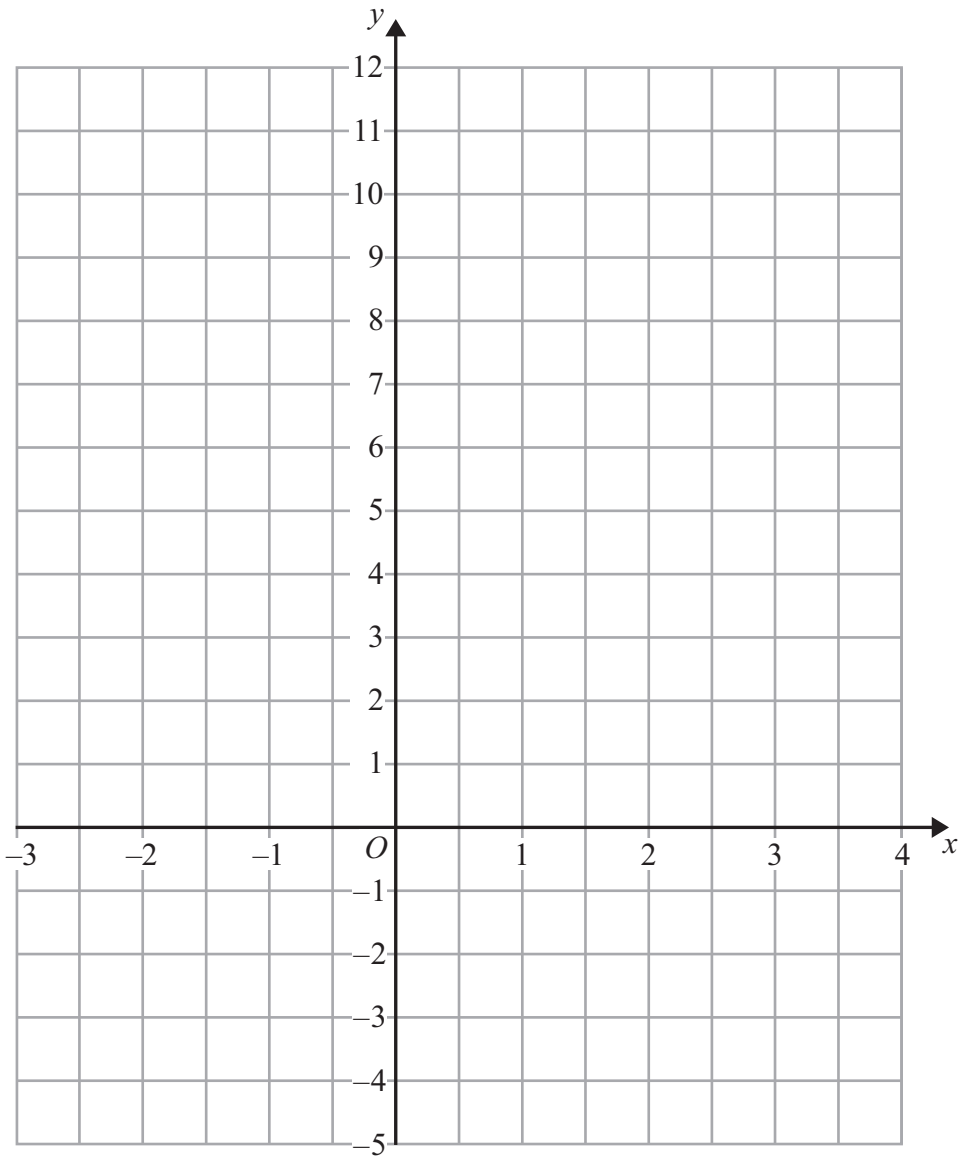


1. [5 marks]

(a) On the grid, draw the graph of $y = 3x + 2$ for values of x from -2 to 3



(3)

(b) Mark with a cross (×) a point on the grid that satisfies both the inequalities

$x > 2$ and $y > 3x + 2$

Label this point P .

(2)



2.

[3 marks]

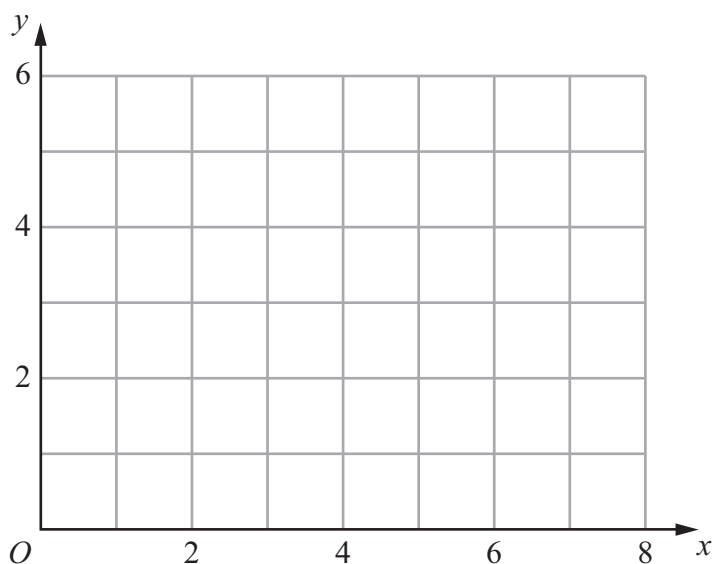
Show, by shading on the grid, the region defined by all three of the inequalities

$$x \leq 5$$

$$y \geq 3$$

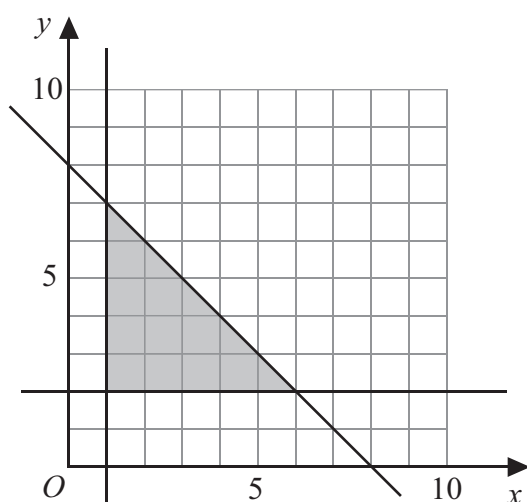
$$y \leq x$$

Label your region **R**.



3.

[3 marks]



Write down the 3 inequalities that define the shaded region.

.....

.....

(3)



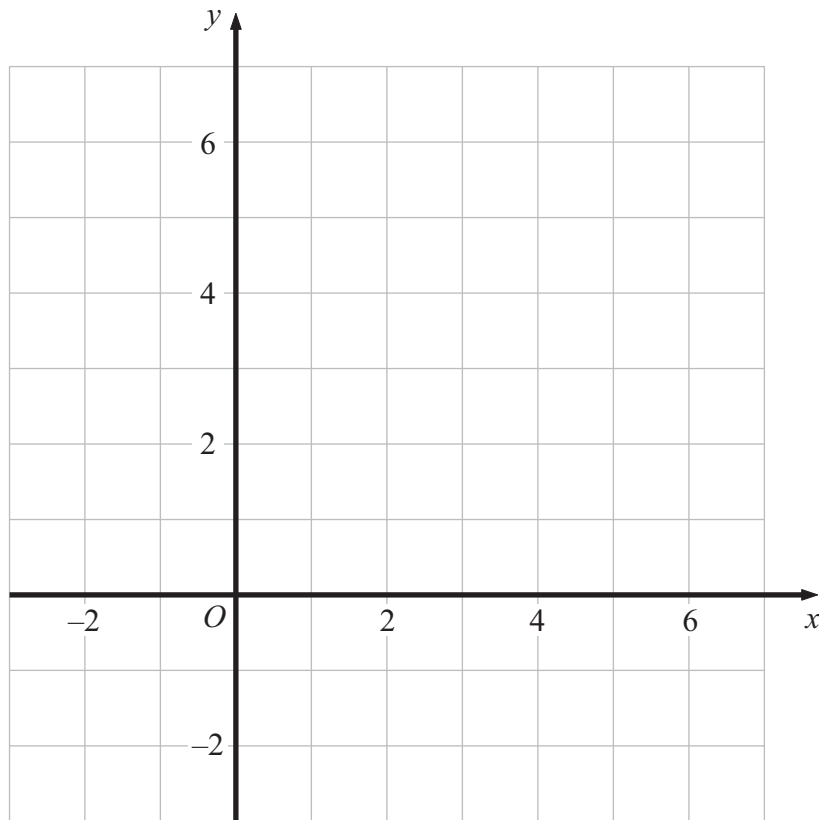
4.

[4 marks]

Show, by shading on the grid, the region which satisfies all three of these inequalities.

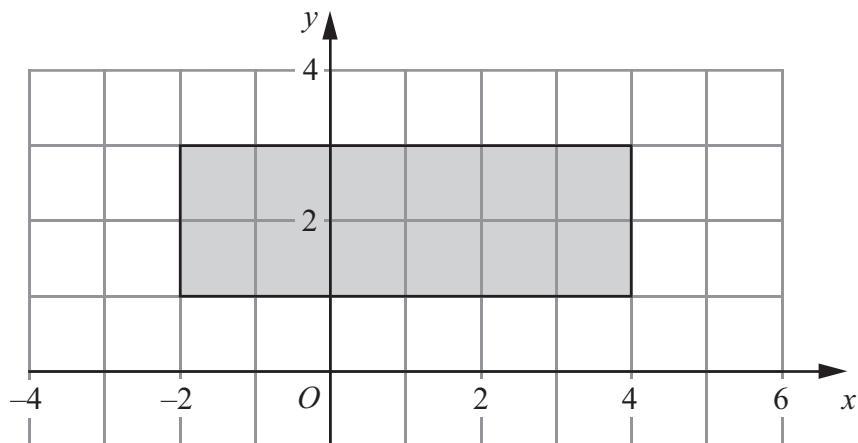
$$y \leq 5 \quad y \leq 2x \quad y \geq x + 1$$

Label your region **R**.



5.

[3 marks]



Write down inequalities to fully define the shaded region.

.....

(3)



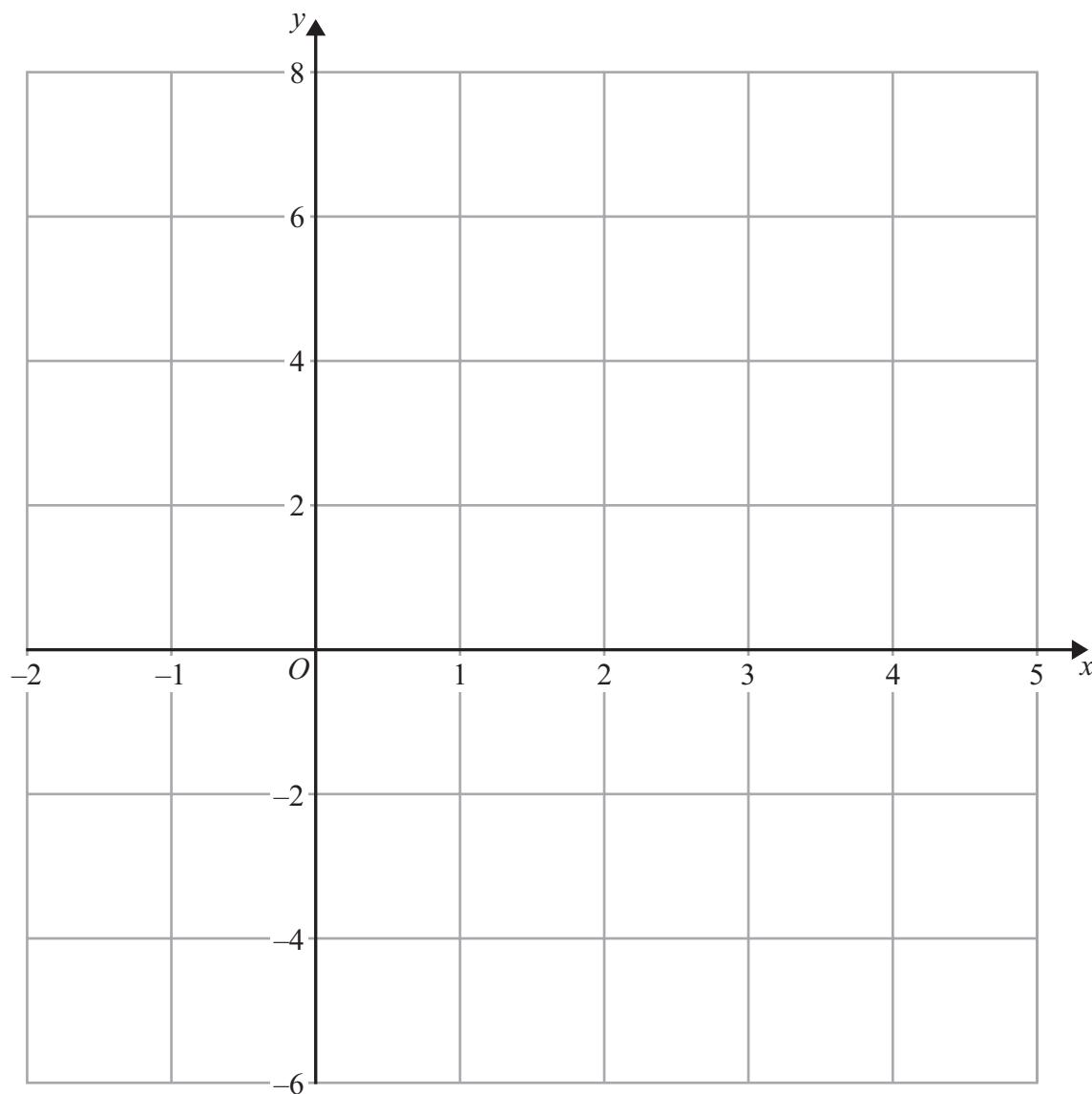
(a) Complete the table of values for $2x + y = 4$

x	-1	2	4
y			

(2)

(b) On the grid, draw the graph of $2x + y = 4$ for values of x from -1 to 4

(2)



(c) Show, by shading on the grid, the region which satisfies **all three** of the inequalities

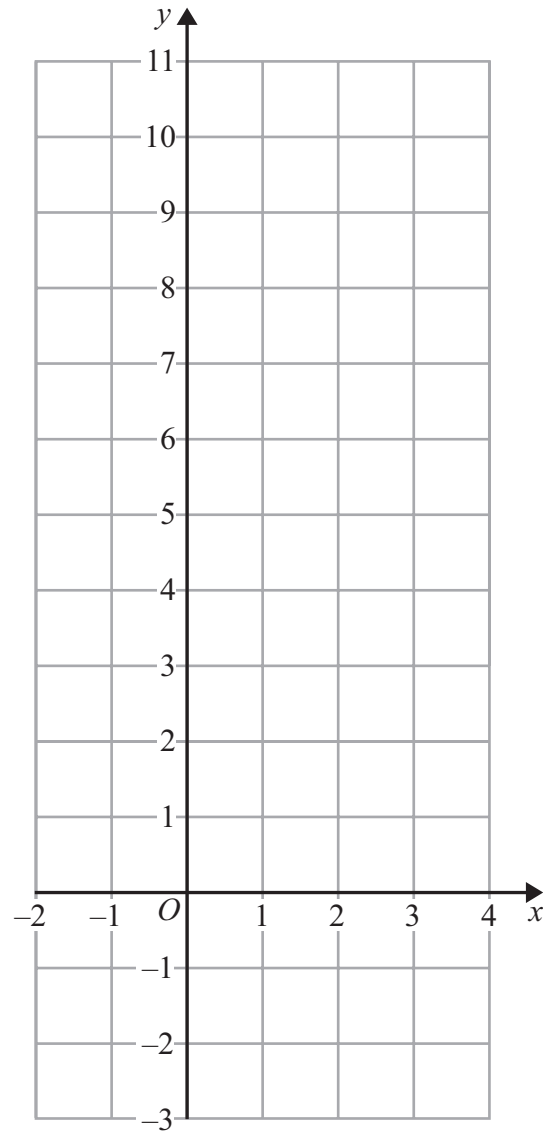
$$x \geq -1, \quad y \geq 2 \quad \text{and} \quad 2x + y \leq 4$$

Label the region **R**.

(2)



- (a) On the grid, draw the graph of $y = 2x + 3$ for values of x from -2 to 4



(3)

- (b) Show, by shading on the grid, the region that satisfies **all three** of the inequalities

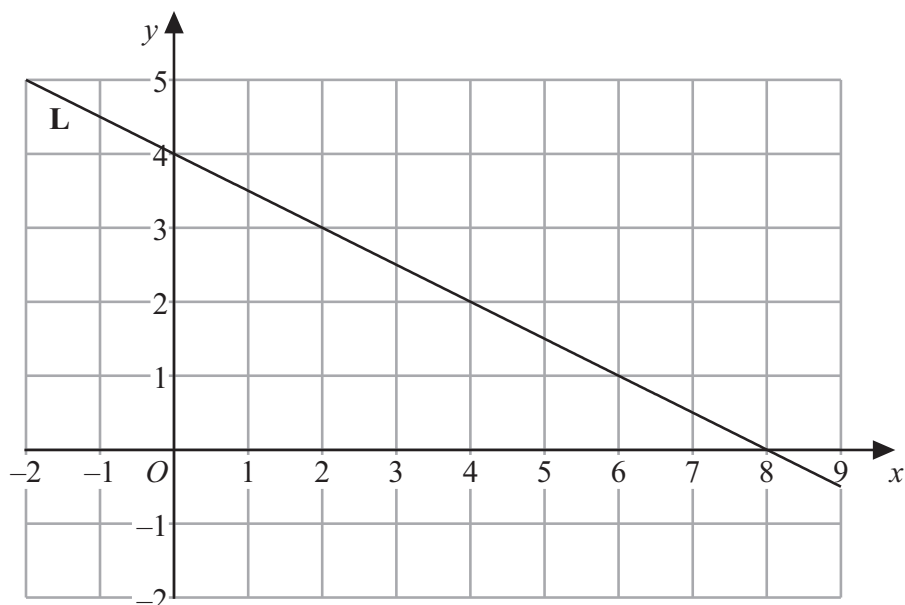
$$x \leq 3 \quad \text{and} \quad y \geq 2 \quad \text{and} \quad y \leq 2x + 3$$

Label your region **R**.

(2)



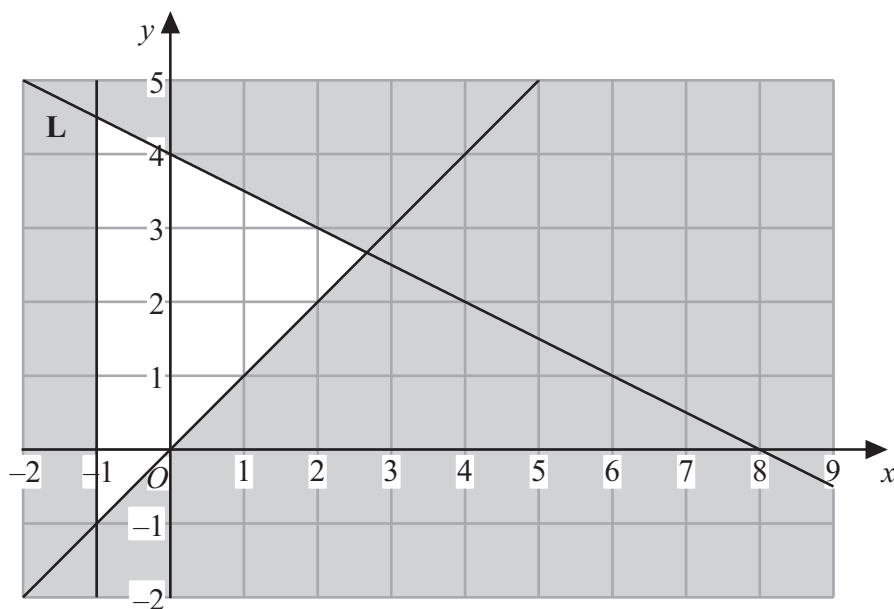
(a)



Find the equation of the line **L**.

.....
(3)

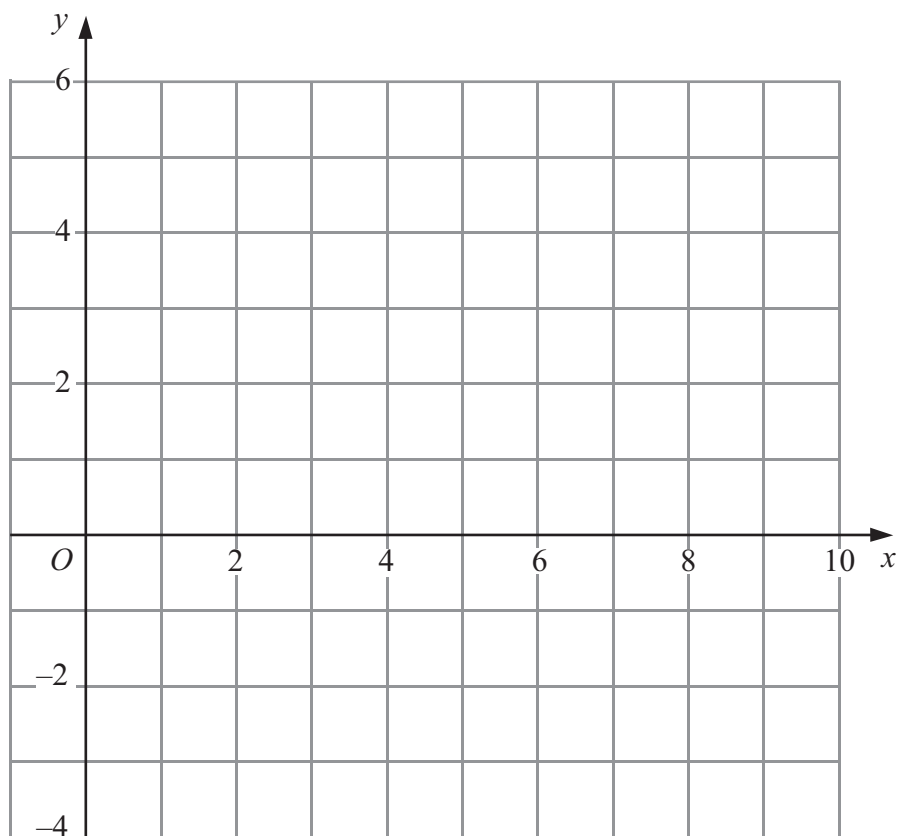
(b) Find the three inequalities that define the **unshaded** region in the diagram below.



.....
.....
(3)



- (a) On the grid, draw the graph of $2x - 3y = 6$ from $x = 0$ to $x = 9$

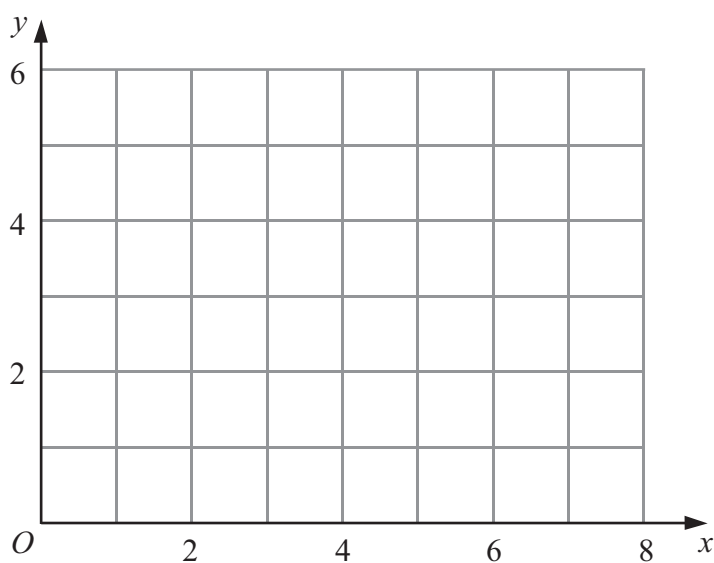


(2)

- (b) On the grid, show by shading the region which satisfies the inequalities

$$3 \leq x \leq 6 \quad \text{and} \quad 2 \leq y \leq 4$$

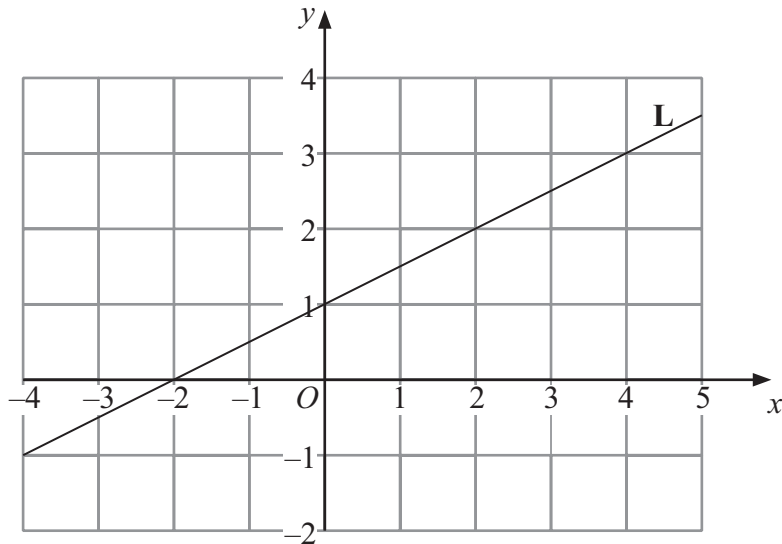
Label your region **R**.



(3)



A line **L** passes through the points $(0, 1)$ and $(4, 3)$.



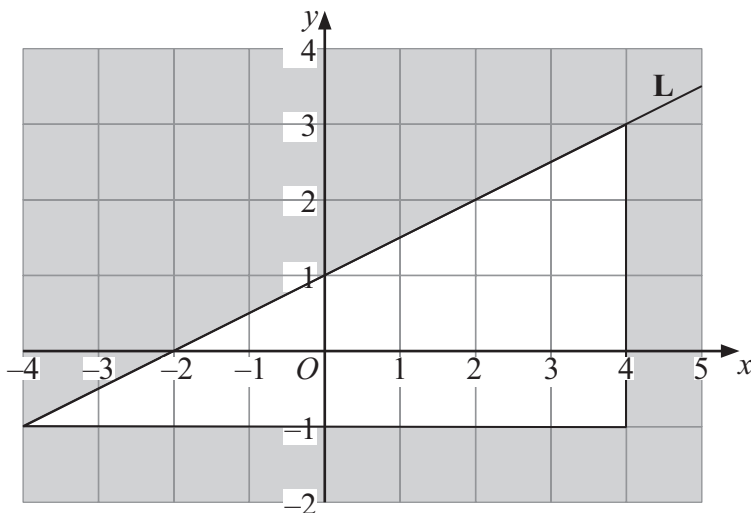
(a) (i) Find the gradient of the line **L**.

.....

(ii) Find the equation of the line **L**.

.....

(b)



Write down the three inequalities that define the **unshaded** region.

.....

.....

(3)

