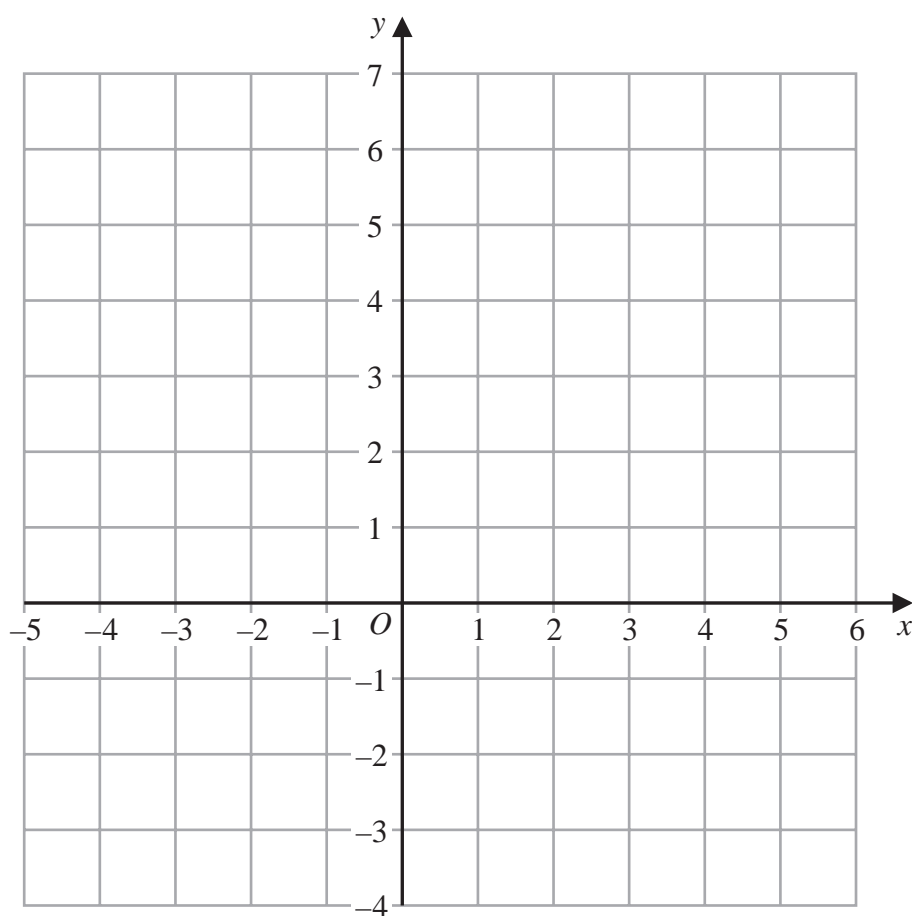


1 Show, by shading on the grid, the region that satisfies all three of the inequalities

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

Label the region **R**.



(Total for Question 1 is 3 marks)

- 2 (a) Write down the integer values of x that satisfy the inequality $-2 < x \leq 4$

.....
(2)

The region **R**, shown shaded in the diagram, is bounded by three straight lines.

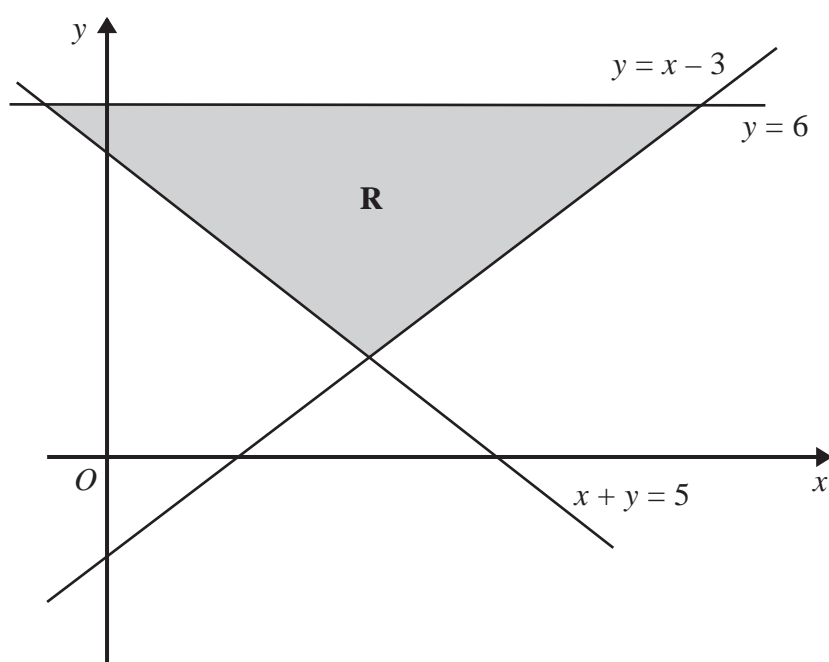


Diagram **NOT**
accurately drawn

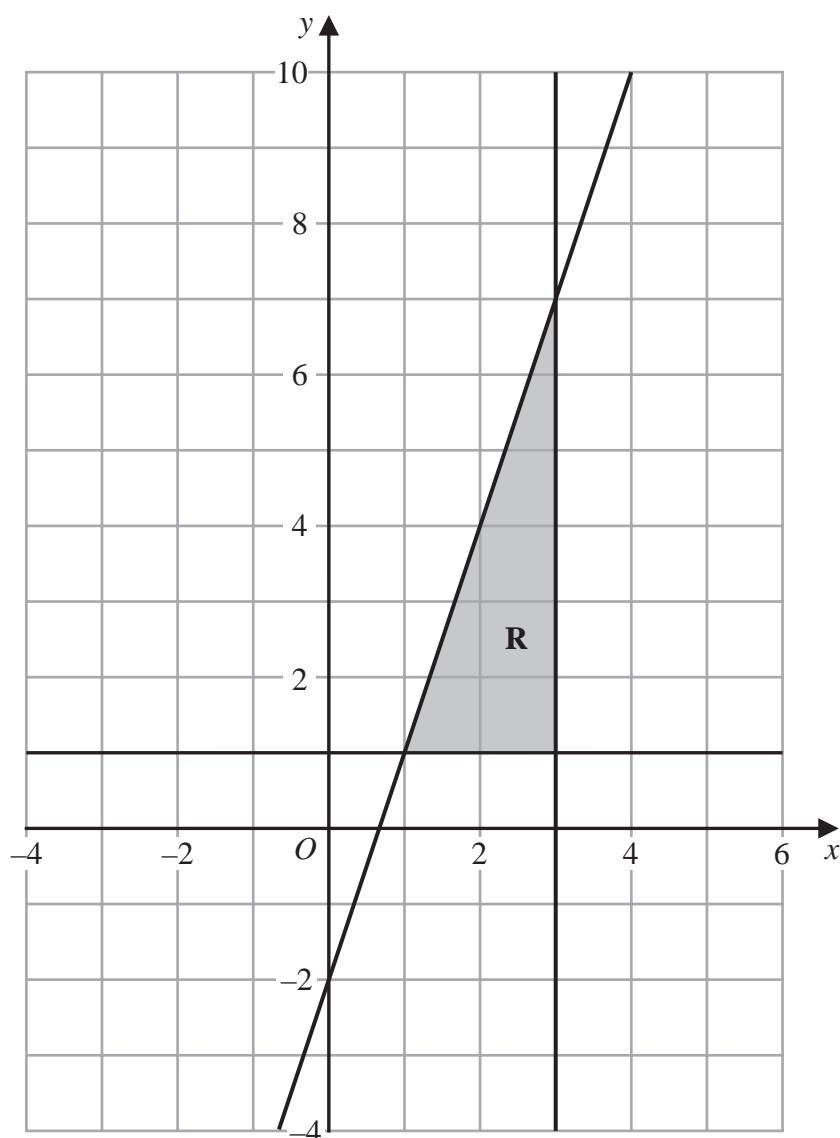
- (b) Write down the three inequalities that define the region **R**.

.....
.....
.....
(2)

(Total for Question 2 is 4 marks)

- 3 The shaded region **R**, shown in the diagram below, is bounded by the straight line with equation $y = 3x - 2$ and by two other straight lines.

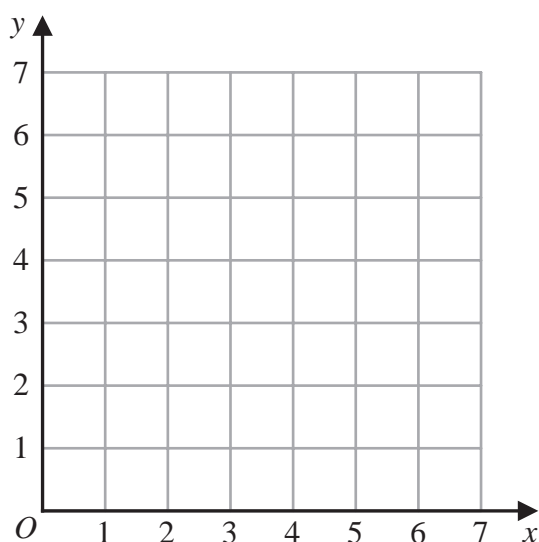
Write down the three inequalities that define region **R**.



.....
.....
.....

(Total for Question 3 is 3 marks)

4



(a) On the grid, draw and **label** the straight line with equation

(i) $x = 1.5$

(ii) $y = x$

(iii) $x + y = 6$

(3)

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

$$x \geq 1.5$$

$$y \geq x$$

$$x + y \leq 6$$

Label the region **R**.

(1)

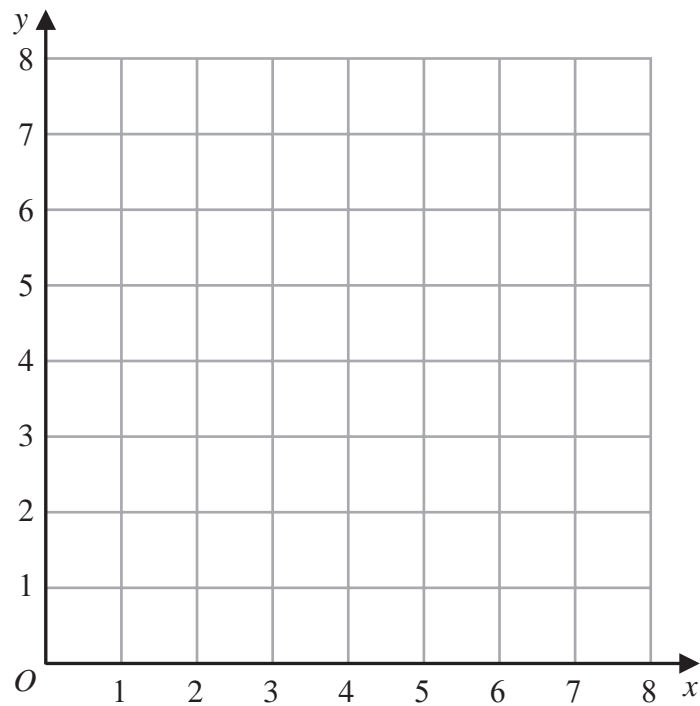
(Total for Question 4 is 4 marks)

5 (a) On the grid, draw and label with its equation the straight line with equation

(i) $y = 1$

(ii) $x = 2$

(iii) $x + y = 7$



(3)

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

$$y \geq 1$$

$$x \geq 2$$

$$x + y \leq 7$$

Label the region **R**.

(1)

(Total for Question 5 is 4 marks)

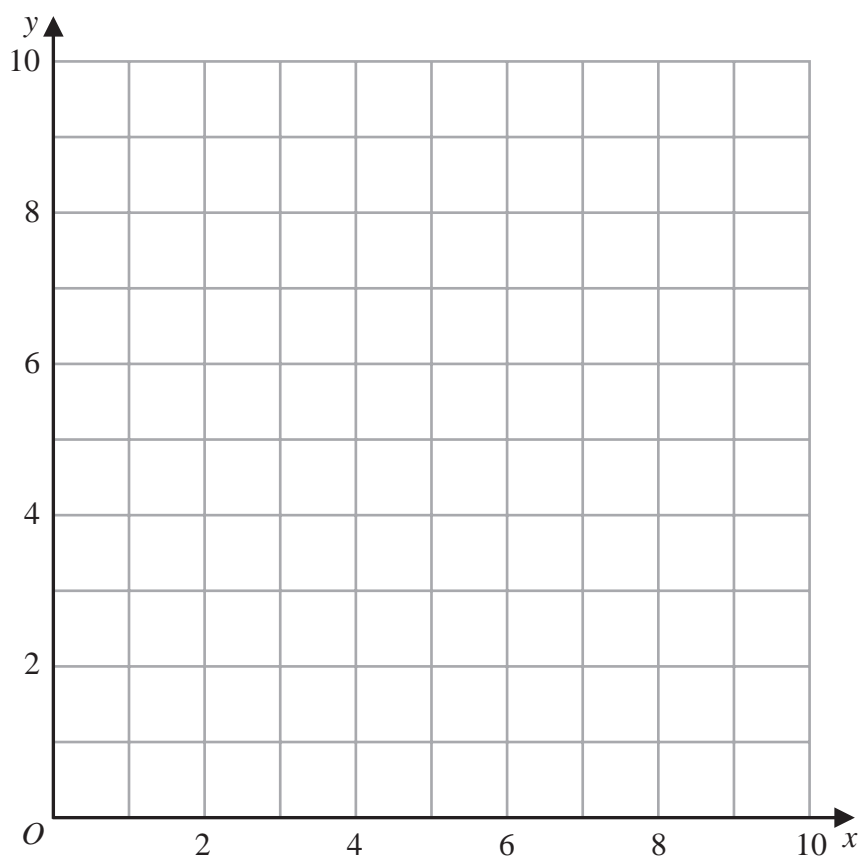
6 (b) Show, by shading on the grid, the region defined by **all three** of the inequalities

$$x \leq 6$$

$$y \geq 2$$

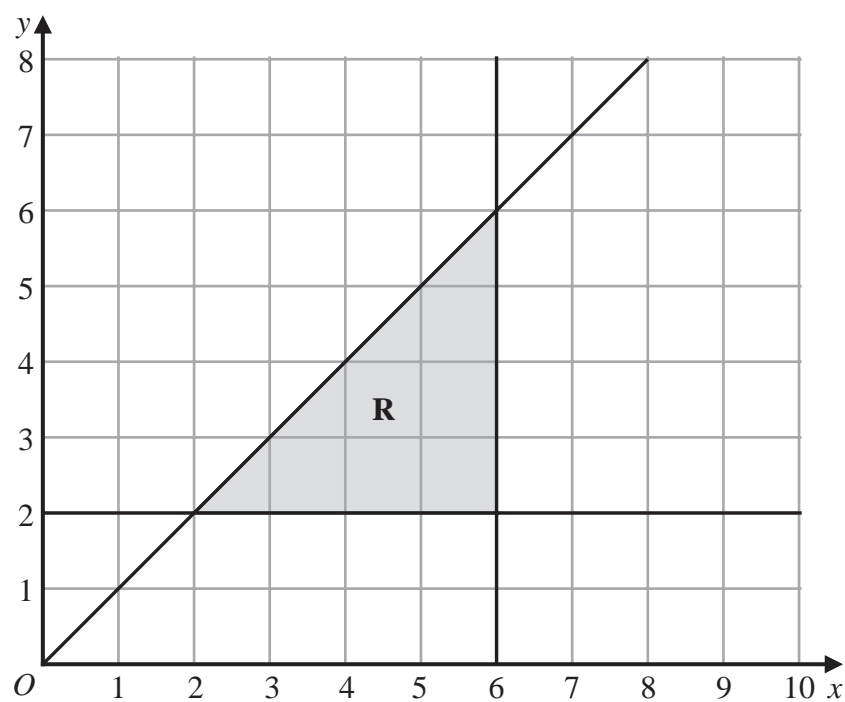
$$y \leq x + 1$$

Label the region **R**



(3)

(Total for Question 6 is 3 marks)



7 (b) Write down the three inequalities that represent the shaded region **R**

.....

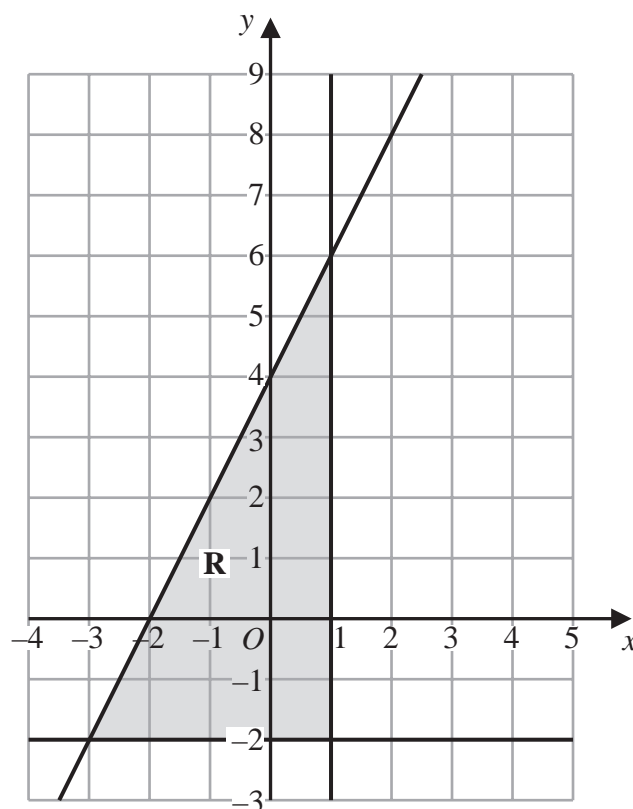
.....

.....

(3)

(Total for Question 7 is 3 marks)

8



The region **R**, shown shaded in the diagram, is bounded by three straight lines.

Find the inequalities that define **R**

.....
.....
.....

(Total for Question 8 is 4 marks)