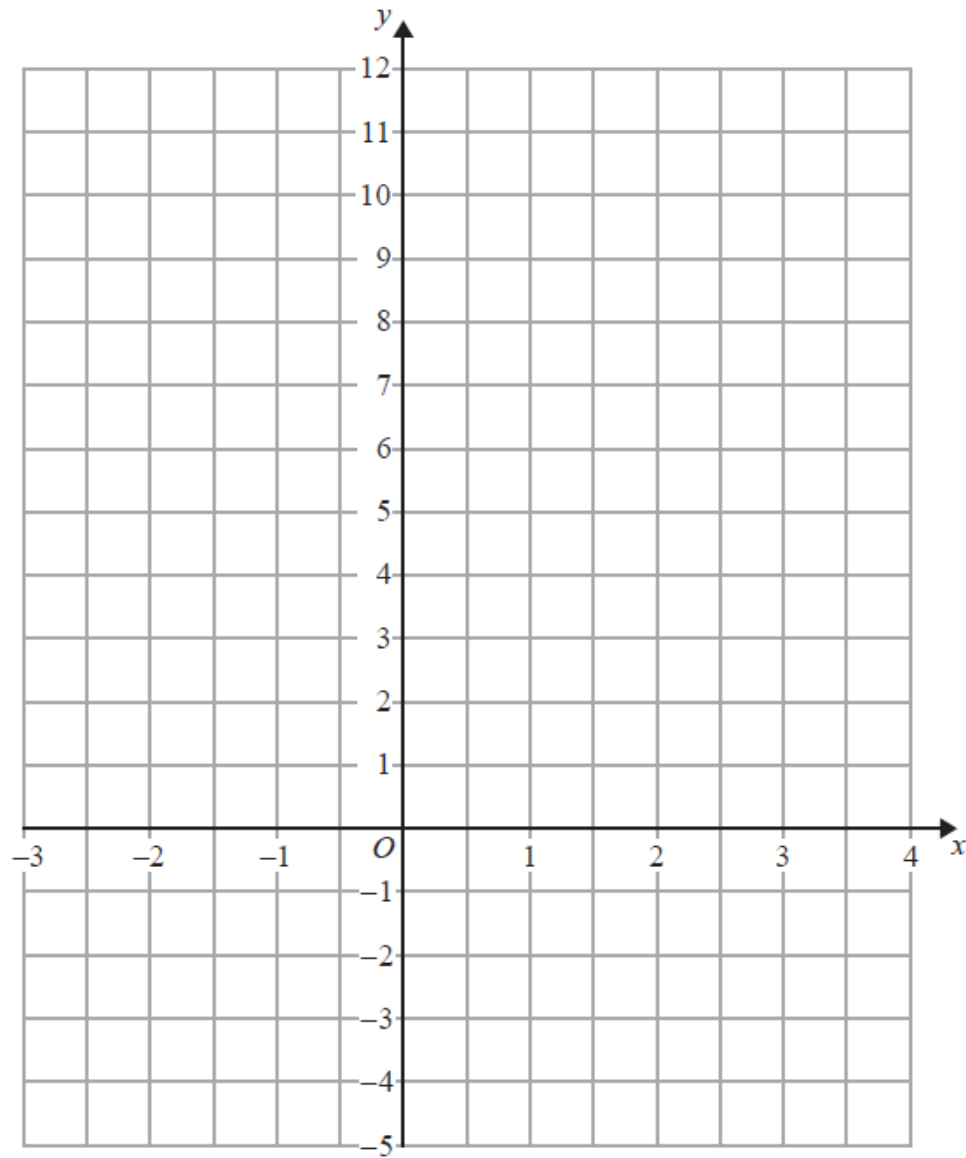


Questions

Q1.

(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 (\times) a point on the grid that satisfies both the inequalities

$$x > 2 \text{ and } y > 3x + 2$$

Label this point P .

(2)

(Total for question = 5 marks)

Q2.

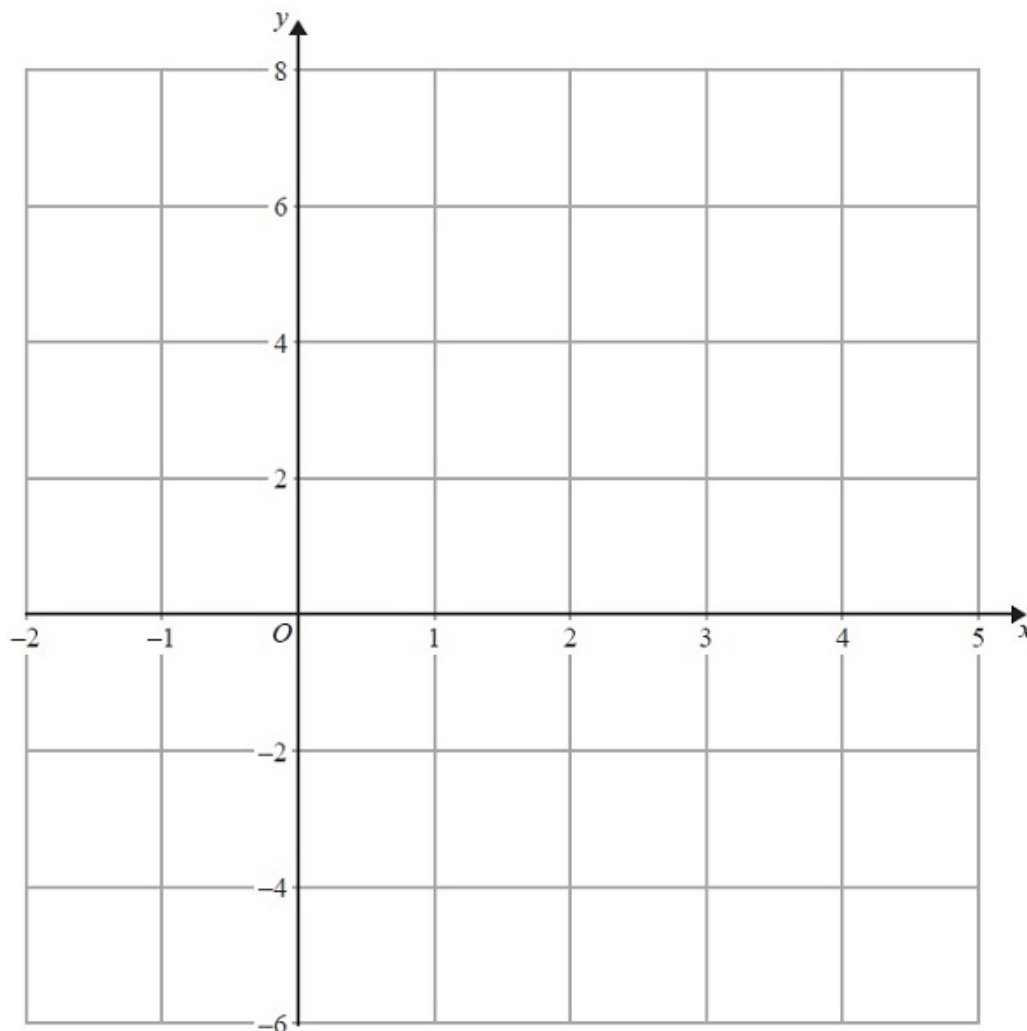
(a) Complete the table of values for $2x + y = 4$

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

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

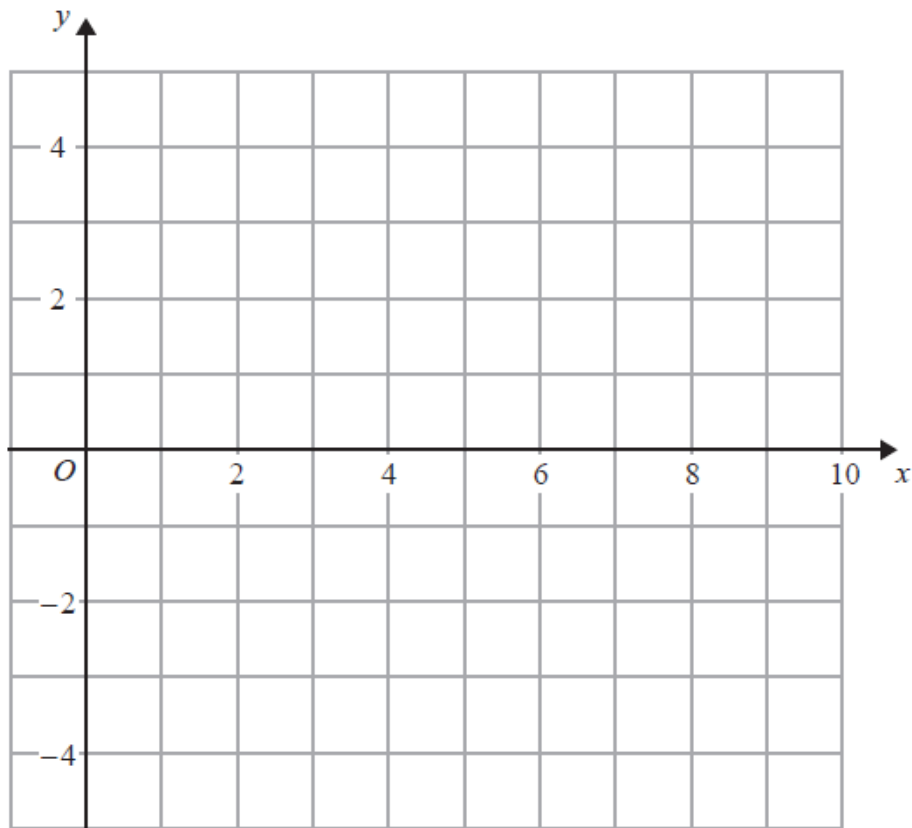
Label the region **R**.

(2)

(Total for Question is 6 marks)

Q3.

(a) On the grid, draw the line with equation $x + 2y = 8$ for values of x from 0 to 9



(2)

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

$$x + 2y \leq 8$$

$$x \geq 2$$

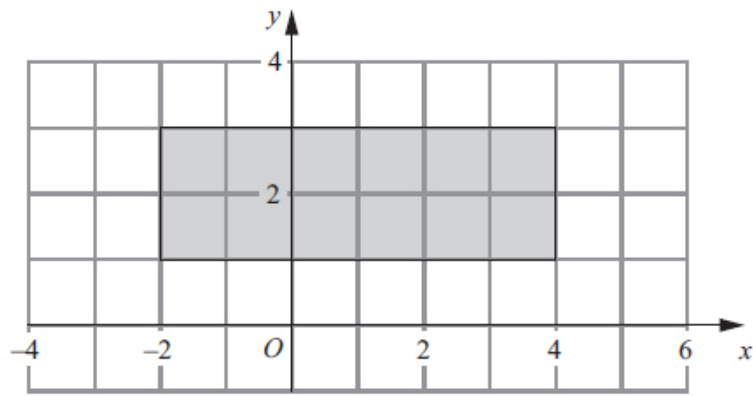
$$y \geq 1$$

Label your region **R**.

(3)

(Total for Question is 5 marks)

Q4.



Write down inequalities to fully define the shaded region.

.....

(Total for question = 3 marks)

Q5.

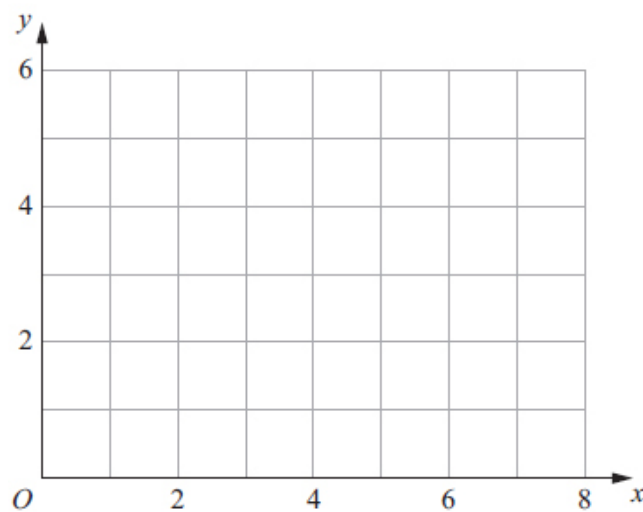
Show, by shading on the grid, the region defined by all three of the inequalities

$$x \leq 5$$

$$y \geq 3$$

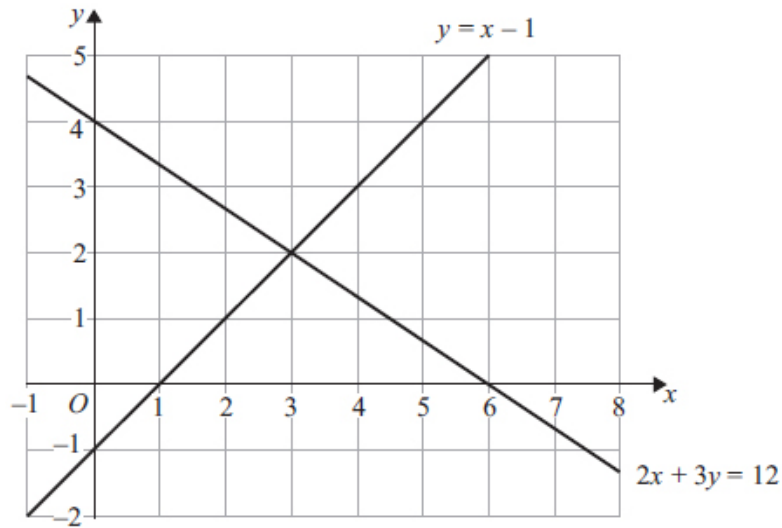
$$y \leq x$$

Label your region **R**.



(Total for question = 3 marks)

Q6.



The diagram shows two straight lines.
 The equations of the lines are $y = x - 1$ and $2x + 3y = 12$

(a) Write down the solution of the simultaneous equations

$$\begin{aligned} y &= x - 1 \\ 2x + 3y &= 12 \end{aligned}$$

$x = \dots\dots\dots, y = \dots\dots\dots$

(1)

(b) Find an equation of the line which is parallel to the line with equation $2x + 3y = 12$ and passes through the point $(0, 10)$

$\dots\dots\dots$

(4)

(c) On the grid, mark with a cross (x) each point which satisfies both these inequalities $y > x - 1$ and $2x + 3y < 12$ and whose coordinates are **positive integers**.

(2)

(Total for question = 7 marks)