JP Maths Revision

Attempt the paper before watching the solutions!

https://www.youtube.com/@JPMathsRevision

HIGHER TIER

Sketching Inequalities

INSTRUCTIONS

- Use **black ink** or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided – *there may be more space than you need.*
- You must **show all your working.**
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- If your calculator does not have a π button, take the value of π to be 3.142 unless the question instructs otherwise.

INFORMATION

- The marks for **each** question are shown in brackets– *use this as a guide as to how much time to spend on each question.*

ADVICE

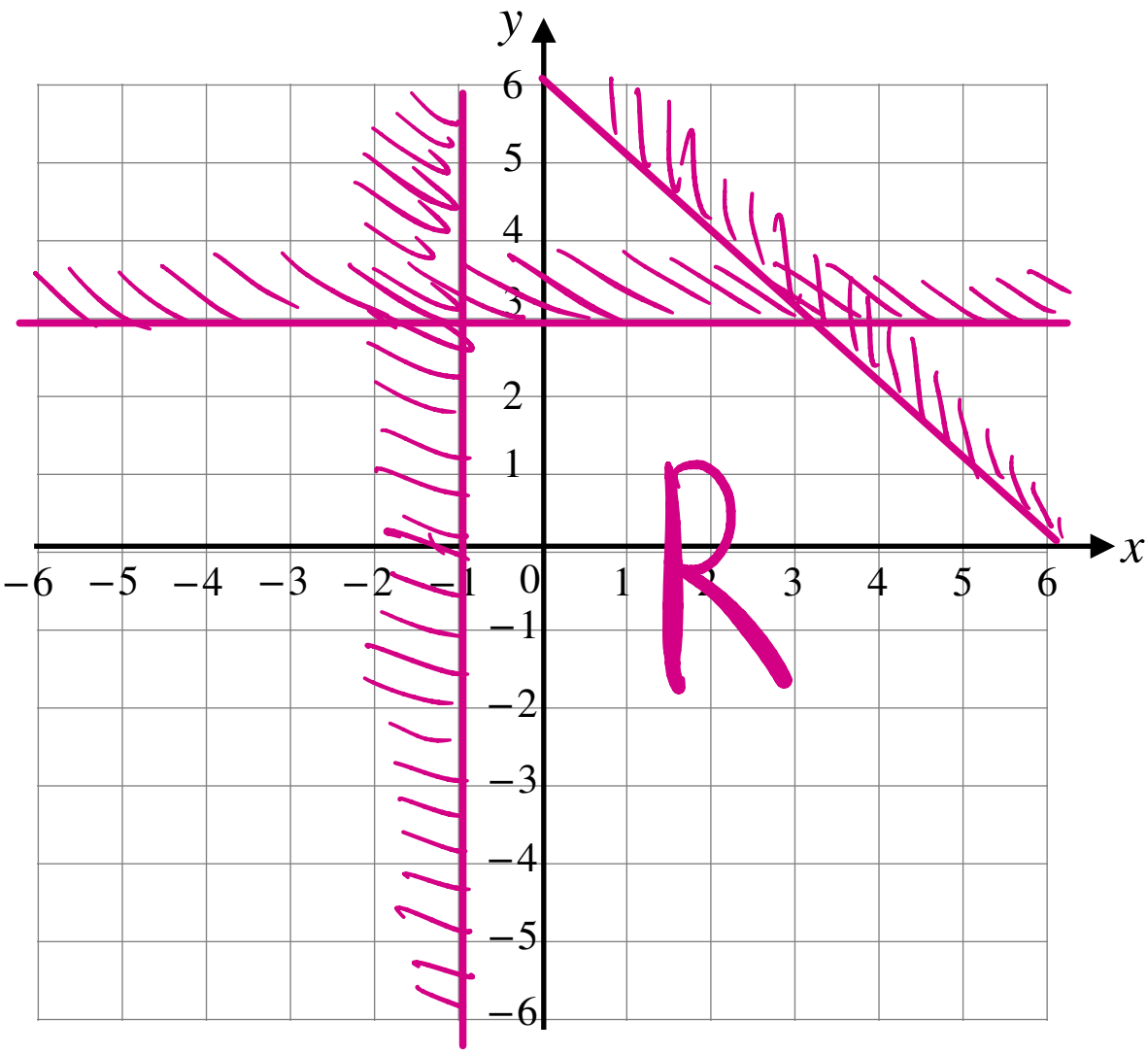
- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

You've got this!

1. On the grid, show the region that satisfies the following inequalities.

$x \geq -1 \quad y \leq 3 \quad x + y \leq 6$

Label the region R

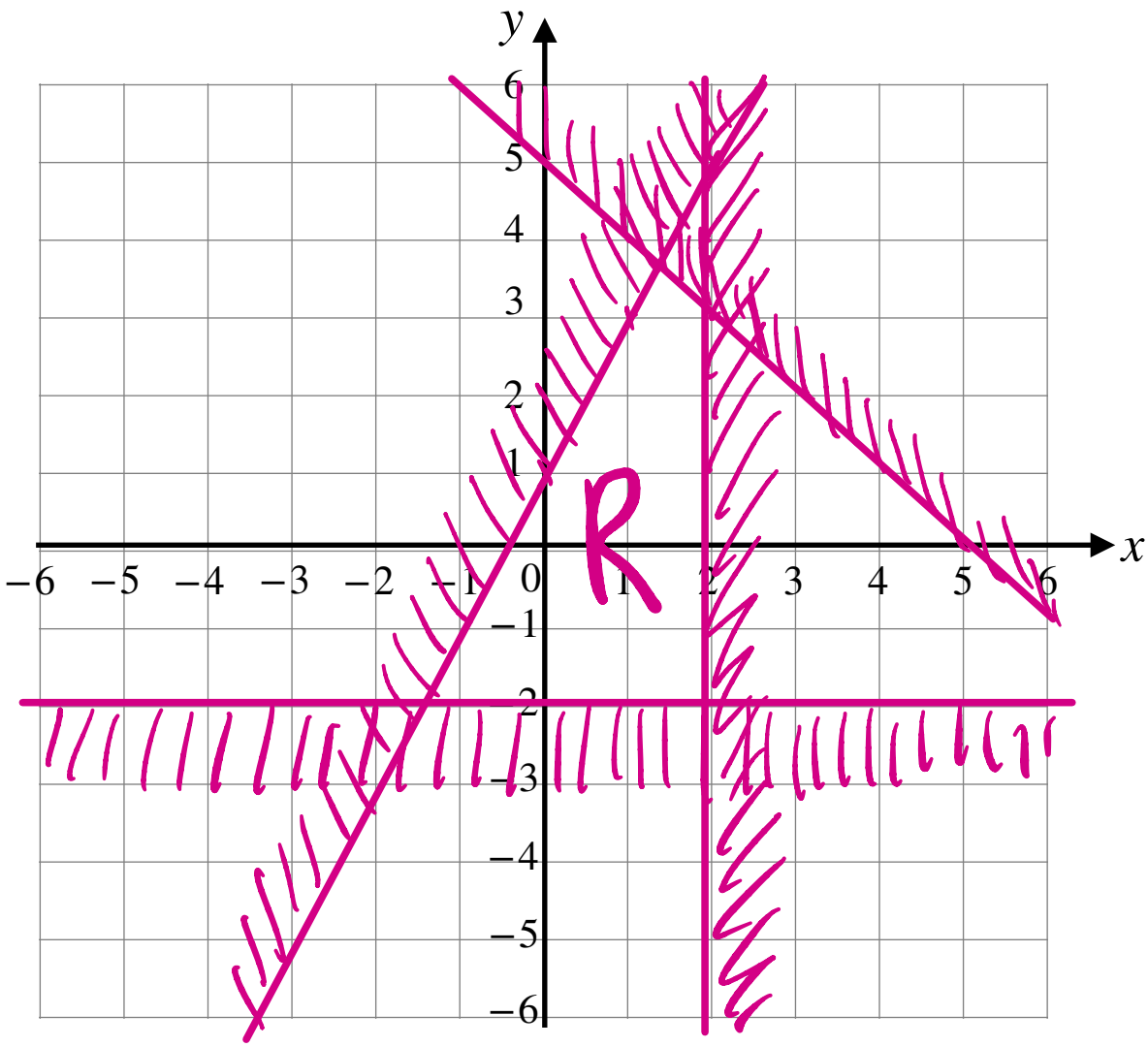


(Total for Question 1 is 3 marks)

2. On the grid, show the region that satisfies the following inequalities.

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

Label the region R

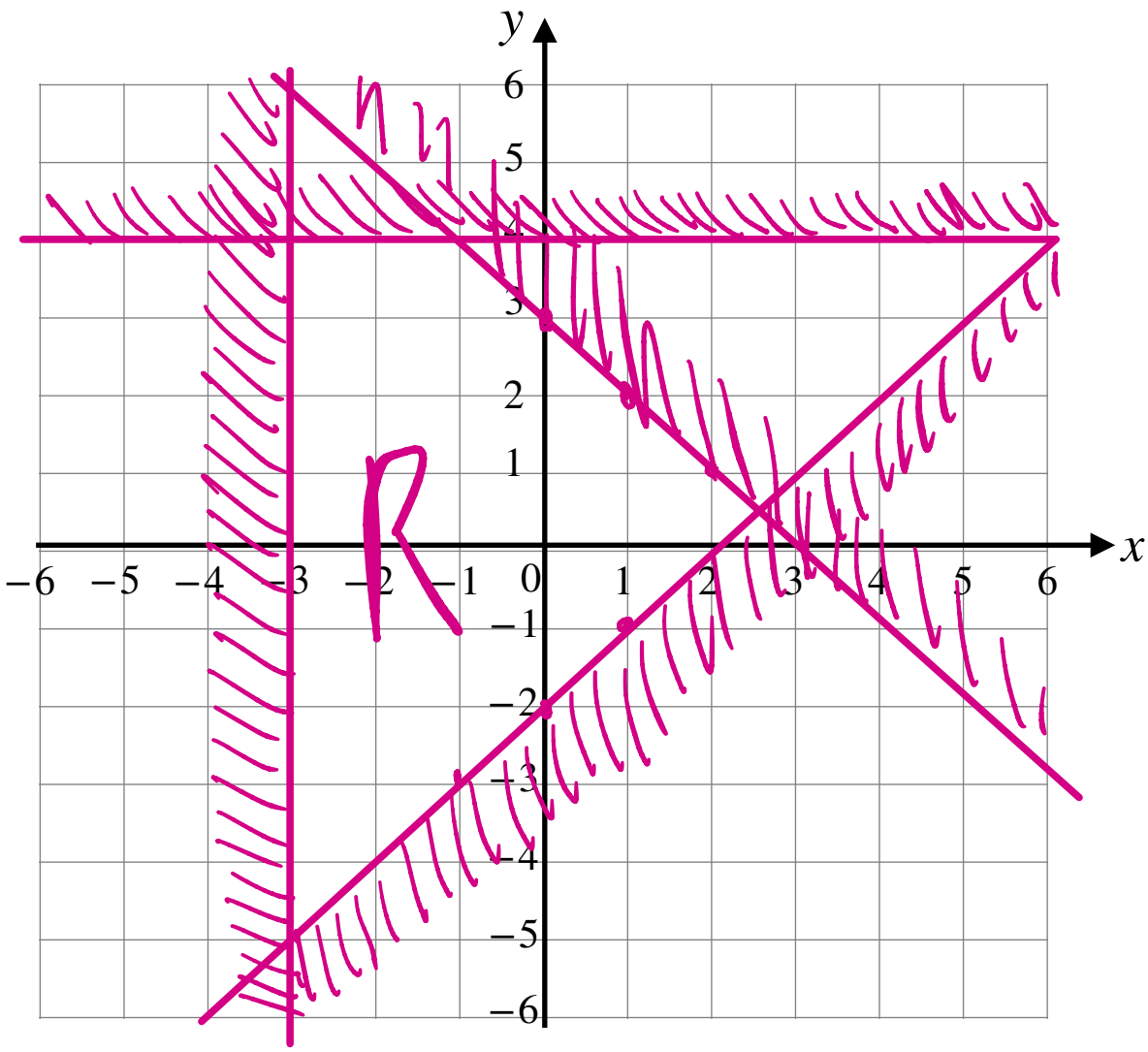


(Total for Question 2 is 4 marks)

3. On the grid, show the region that satisfies the following inequalities.

$x \geq -3 \quad y \leq 4 \quad y \geq x - 2 \quad y \leq -x + 3$

Label the region R

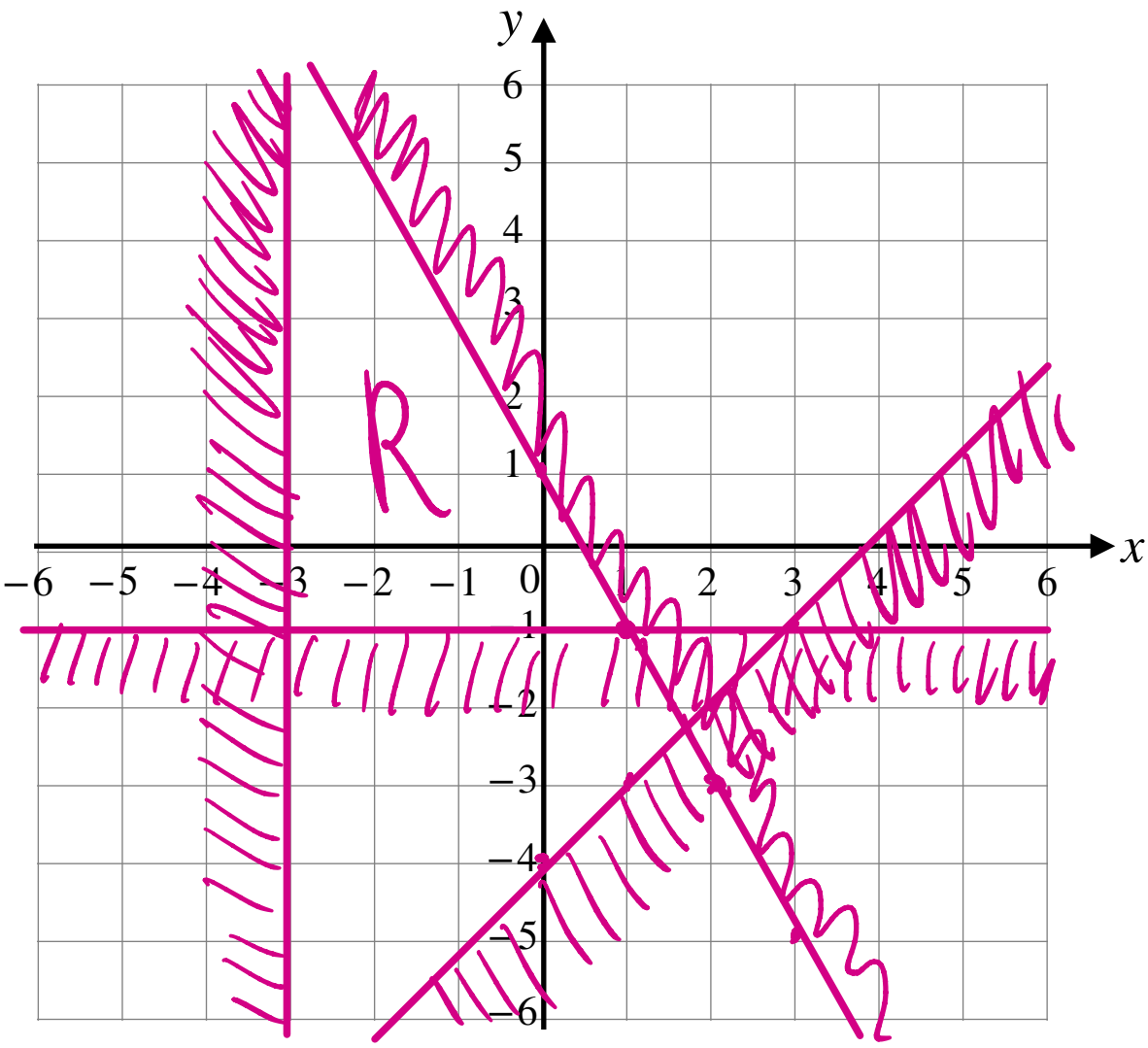


(Total for Question 3 is 4 marks)

4. On the grid, show the region that satisfies the following inequalities.

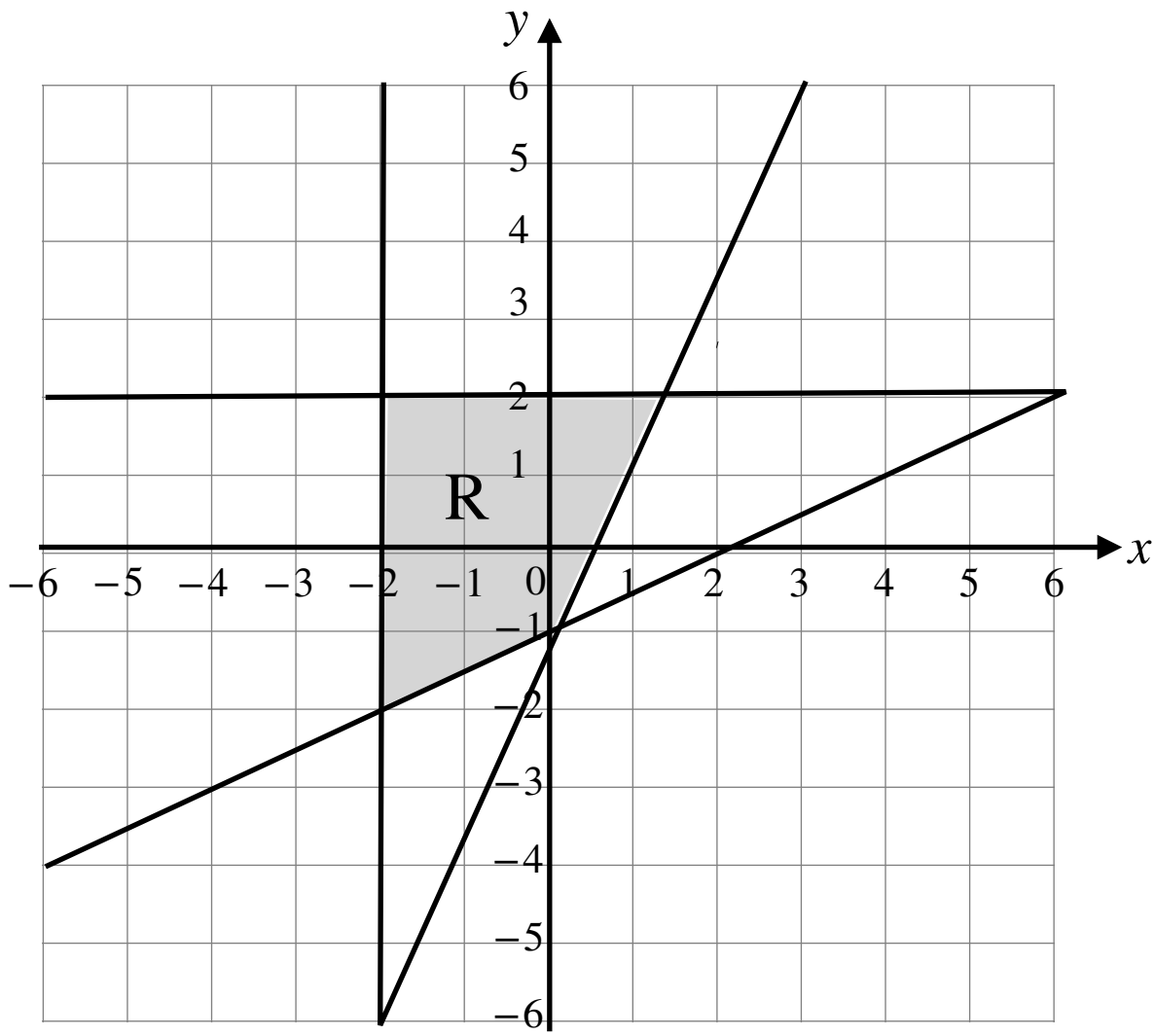
$2x + y \leq 1$ $x - y \leq 4$ $x \geq 3$ $y \geq -1$

Label the region R



(Total for Question 4 is 4 marks)

5. On the grid, the region R is shown. Write down the inequalities that define the region.



$y \leq 2$

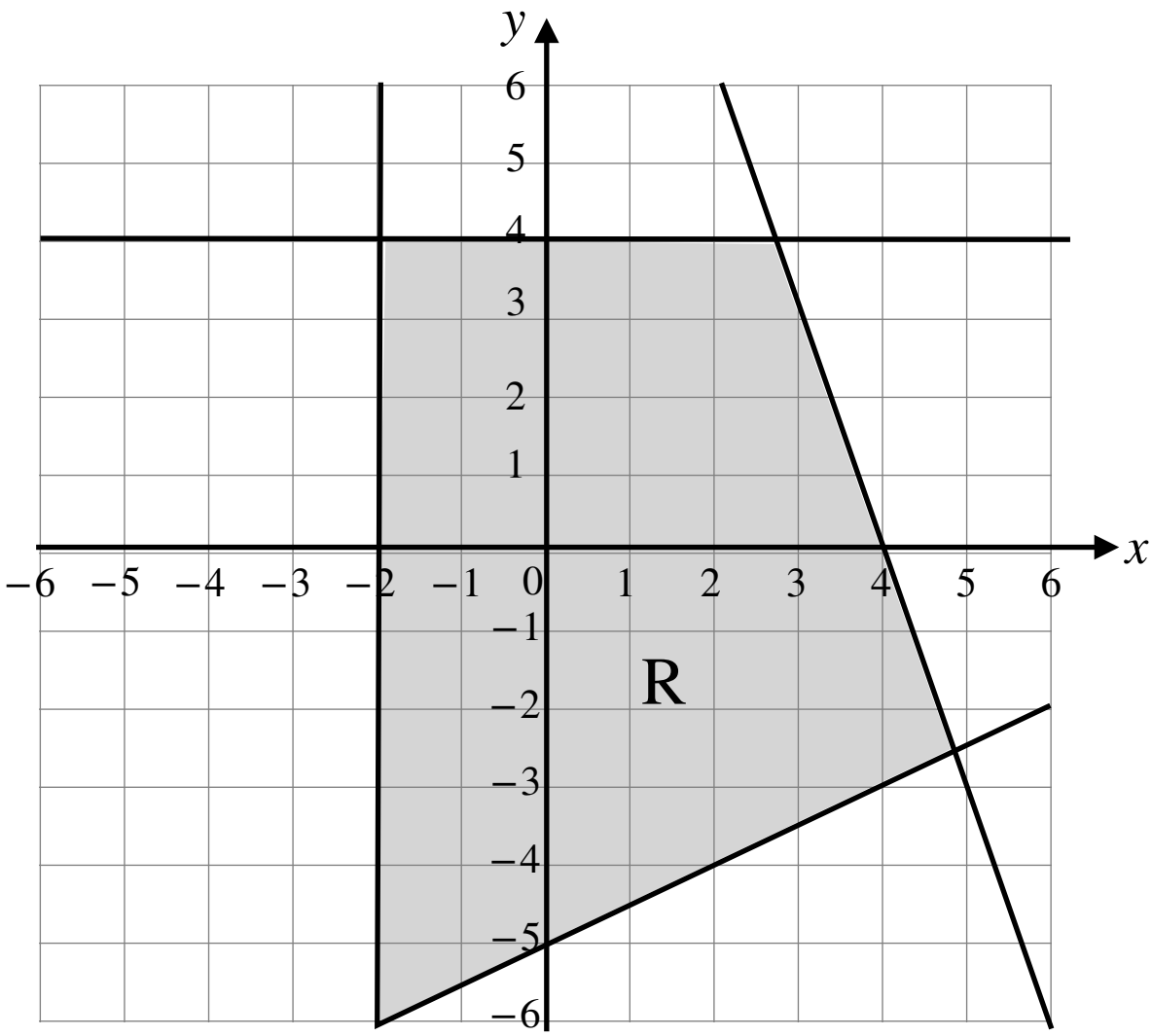
$x \geq -2$

$y \leq 2x - 1$

$y \geq \frac{1}{2}x - 1$

(Total for Question 5 is 4 marks)

6. On the grid, the region R is shown. Write down the inequalities that define the region.



$y = 3x + c$

$0 = -12 + c$

$c = 12$

$x \geq -2$

$y \leq 4$

$y \geq \frac{1}{2}x - 5$

$y \leq 3x + 12$

(Total for Question 6 is 4 marks)