

Graphing Inequalities (From OCR 6993)

Q1, (Jun 2009, Q10)

(i) Illustrate on one graph the following three inequalities.

$$y \geq x - 1$$

$$x \geq 2$$

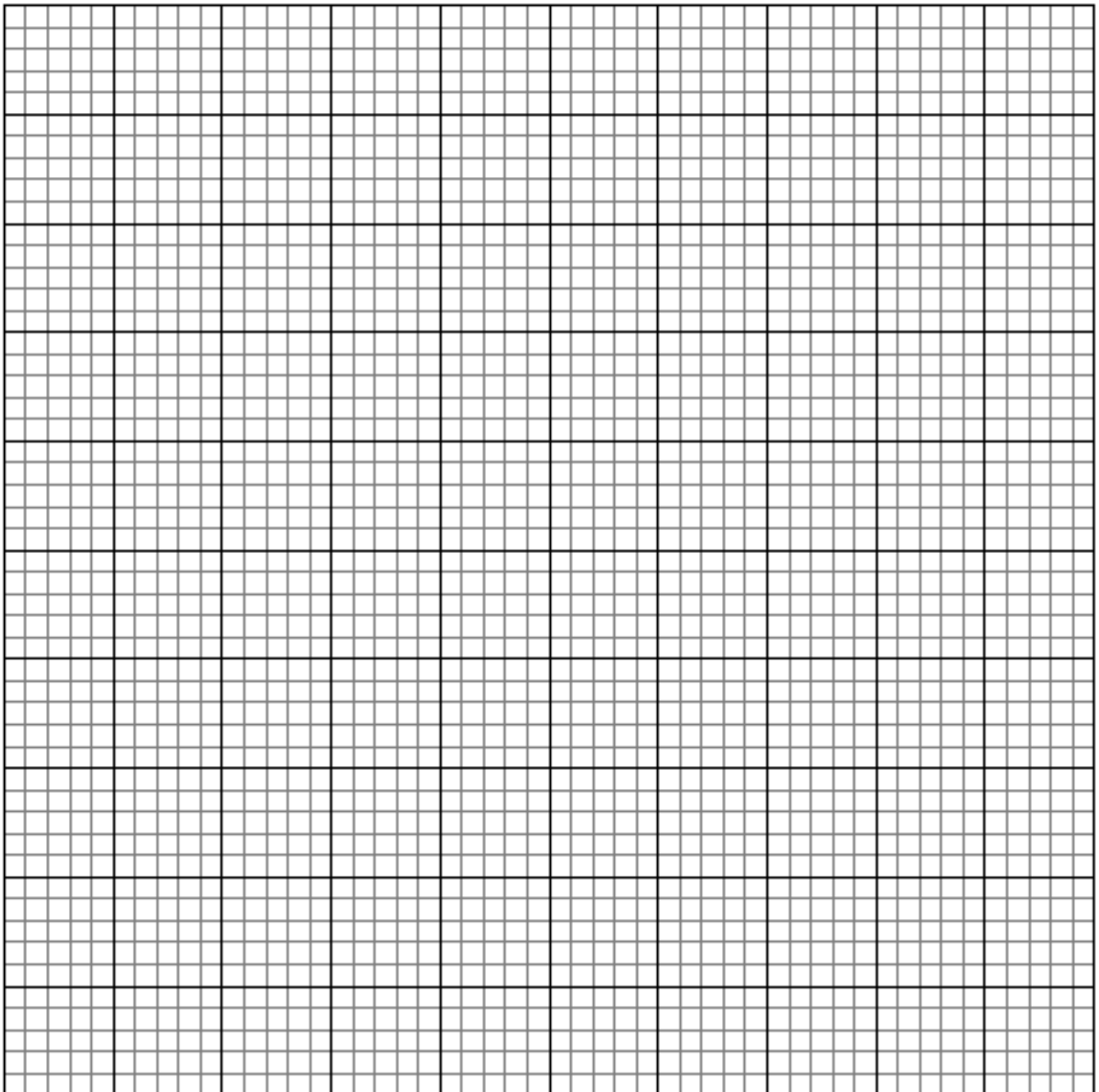
$$2x + y \geq 8$$

Draw suitable boundaries and shade areas that are excluded.

[4]

(ii) Write down the minimum value of y in this region.

[1]



Q2, (Jun 2011, Q8i)

On the axes given, indicate the region for which the following inequalities hold. You should shade the region which is not required.

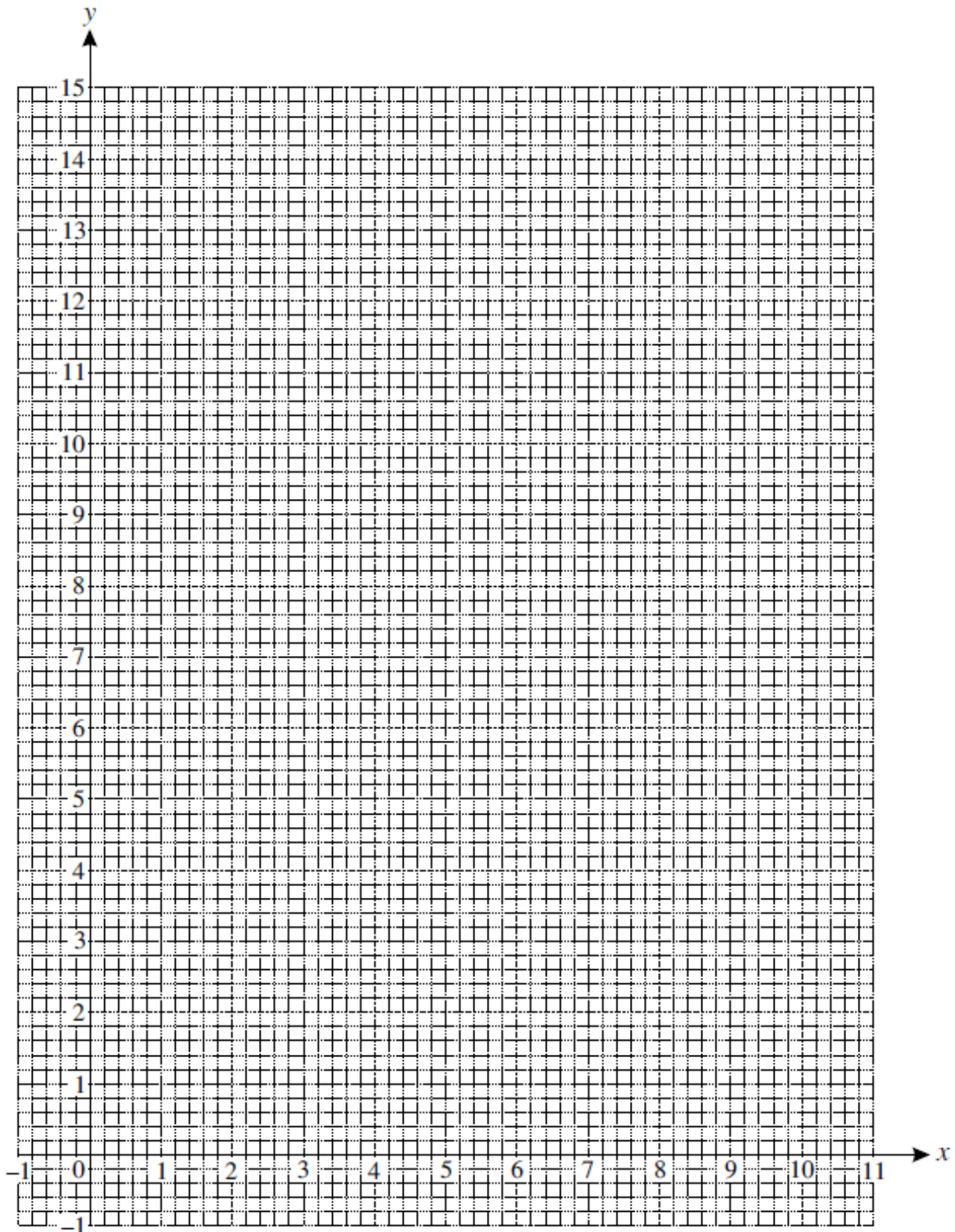
$$5x + 3y \geq 30$$

$$3x + y \geq 12$$

$$y \geq 0$$

$$x \geq 0$$

[5]



Q3, (Jun 2016, Q10i)

On the axes given in the Printed Answer Book, indicate the region for which the following inequalities hold. You should shade the region that is **not** satisfied by the inequalities.

$$\begin{aligned}4x + 3y &\leq 30 \\ y &\geq 2x \\ x &\geq 1\end{aligned}$$

[5]

