Answer all ELEVEN questions.
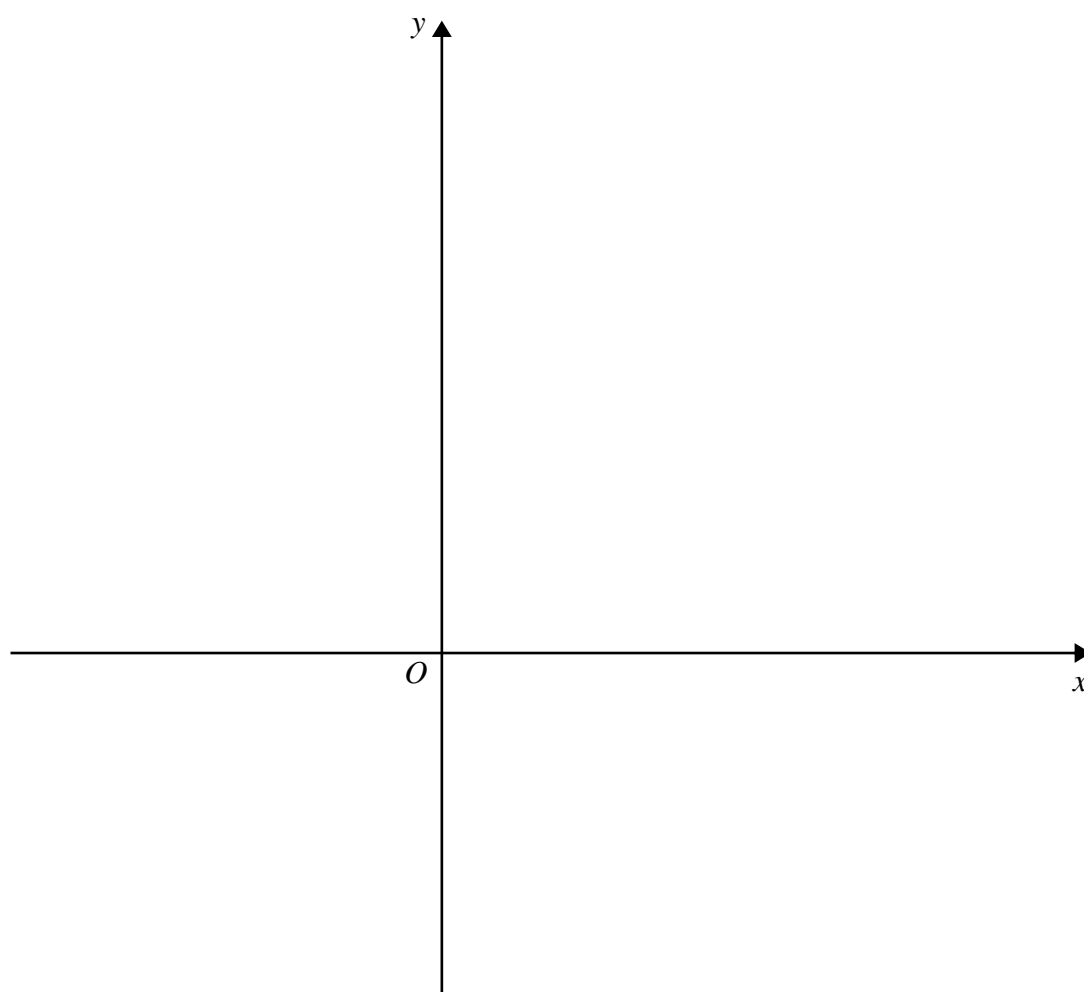
Write your answers in the spaces provided.

You must write down all the stages in your working.

1 (a) On the axes below, sketch the lines with equations $2x + 3y = 8$ and $2y = 4x + 1$

On your sketch, show the coordinates of the points where the lines cross the coordinate axes.

(2)

(b) Show, by shading on your sketch, the region R defined by the inequalities

$$2x + 3y \leqslant 8 \qquad 2y \leqslant 4x + 1 \qquad y \geqslant 0 \qquad x \leqslant 2$$

(2)

(Total for Question 1 is 4 marks)