

**Answer all ELEVEN questions.**

**Write your answers in the spaces provided.**

**You must write down all stages in your working.**

- 1** (a) On the axes below sketch the lines with equations

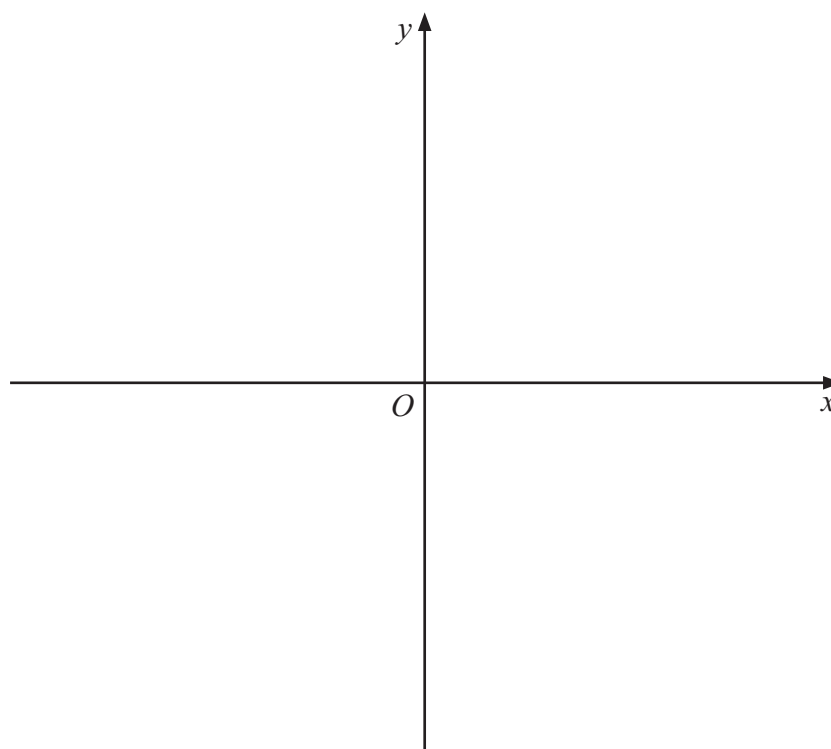
(i)  $y = 8$     (ii)  $y + x = 6$     (iii)  $y = 3x - 4$

Show the coordinates of the points where each line crosses the coordinate axes.

**(3)**

- (b) Show, by shading, the region  $R$  which satisfies  $y \geq 3x - 4$ ,  $y + x \geq 6$ ,  $x \geq 0$  and  $y \leq 8$

**(1)**



**(Total for Question 1 is 4 marks)**

