2

l_1

y

Diagram **NOT** accurately drawn

$(0, 8)$

l_2

R

$(0, 4)$
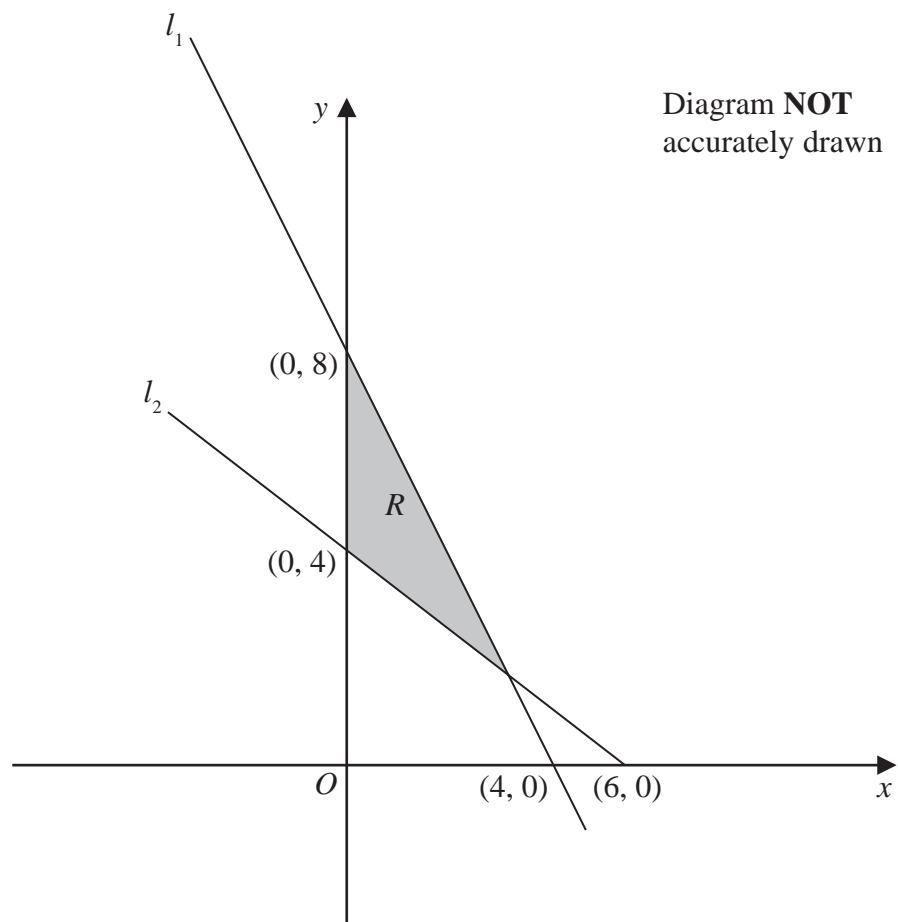
O $(4, 0)$ $(6, 0)$ x

Figure 2

Figure 2 shows the shaded region R bounded by the line l_1, the line l_2 and the y-axis.

The points with coordinates $(0, 8)$ and $(4, 0)$ lie on l_1

The points with coordinates $(0, 4)$ and $(6, 0)$ lie on l_2

(a) Find, in the form $ax + by = c$, where a, b and c integers, an equation of

   (i) l_1

   (ii) l_2

(3)

(b) Hence write down three inequalities that define the region R.

(3)

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Question 2 continued

(Total for Question 2 is 6 marks)