2. The line l passes through the points $A(-3, 0)$ and $B\left(\frac{5}{2}, 22\right)$

(a) Find the equation of l giving your answer in the form $y = mx + c$ where m and c are constants.

(3)

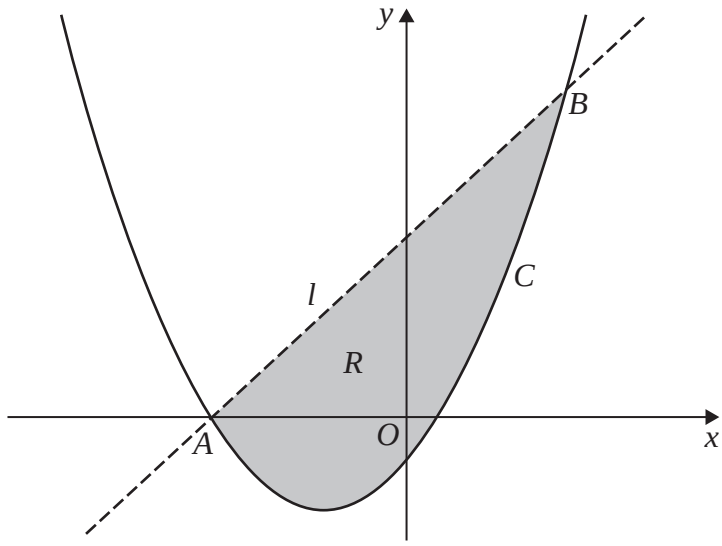

Figure 2

Figure 2 shows the line l and the curve C, which intersect at A and B.

Given that

- C has equation $y = 2x^2 + 5x - 3$
- the region R, shown shaded in Figure 2, is bounded by l and C

(b) use inequalities to define R.

(2)