5 (a) Solve the inequality $5(x + 1) < x$
Show clear algebraic working.

(2)

(b) Solve the simultaneous equations

$$3x^2 + y^2 - 7 = 0$$
$$y - 3x - 5 = 0$$

Show clear algebraic working.

(5)

(c) Hence find the value of x for which

$$5(x + 1) < x \quad \textbf{and} \quad 3x^2 + y^2 - 7 = 0 \quad \textbf{and} \quad y - 3x - 5 = 0$$

(1)

Question 5 continued

(Total for Question 5 is 8 marks)