

- 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

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

(1)

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA



**Question 5 continued**

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

DO NOT WRITE IN THIS AREA

**(Total for Question 5 is 8 marks)**



P 5 9 0 1 5 A 0 1 1 3 2