8
$$\sin(A + B) = \sin A \cos B + \cos A \sin B$$

$$\tan A = \frac{\sin A}{\cos A}$$

(a) Show that the equation

$$4\sin(x + \alpha) = 7\sin(x - \alpha)$$

can be written in the form

$$3\tan x = 11\tan \alpha$$

(5)

(b) Hence solve, to 1 decimal place,

$$4\sin(3y + 45)° = 7\sin(3y - 45)° \quad \text{for} \ \ 0 \leqslant y \leqslant 180$$

(6)

Question 8 continued

P4 2 9 5 0 A 0 1 7 3 2

PMT

Question 8 continued

P 4 2 9 5 0 A 0 1 8 3 2

Question 8 continued

(Total for Question 8 is 11 marks)