

- 2 (a) Show that the equation $6\cos^2\alpha - \sin\alpha = 5$ can be written as

$$6\sin^2\alpha + \sin\alpha - 1 = 0 \quad (2)$$

- (b) Solve, to 1 decimal place where appropriate, for $0 \leq \theta \leq 90$

$$6\cos^2(2\theta + 40)^\circ - \sin(2\theta + 40)^\circ = 5 \quad (5)$$

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Question 2 continued

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(Total for Question 2 is 7 marks)

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