

- 4** **(i)** Solve the equation $\sin 2x + 3 \cos 2x = 0$ for $0^\circ \leq x \leq 360^\circ$. [5]
- (ii)** How many solutions has the equation $\sin 2x + 3 \cos 2x = 0$ for $0^\circ \leq x \leq 1080^\circ$? [1]