

- 5** **(i)** Sketch, on the same diagram, the curves $y = \sin 2x$ and $y = \cos x - 1$ for $0 \leq x \leq 2\pi$. [4]
- (ii)** Hence state the number of solutions, in the interval $0 \leq x \leq 2\pi$, of the equations
- (a)** $2 \sin 2x + 1 = 0$, [1]
- (b)** $\sin 2x - \cos x + 1 = 0$. [1]