

Harder equations

Solve $\cos 3x = -\frac{1}{2}$ in the interval $0 \leq x \leq 360^\circ$.

Solve $\sin(2x + 30^\circ) = \frac{1}{\sqrt{2}}$ in the interval $0 \leq x \leq 360^\circ$.

Solve $\sin x = 2 \cos x$ in the interval $0 \leq x < 300^\circ$

Solve, for $0 \leq x < 180^\circ$,

$$\cos(3x - 10^\circ) = -0.4,$$

giving your answers to 1 decimal place. You should show each step in your working.

(7)