

Solve these equations giving all solutions between  $0^\circ$  and  $180^\circ$ .

Write your answers to three significant figures where appropriate.

**a**  $\sin 2x = 0.5$

**b**  $\sin 3x = 1$

**c**  $\cos 2x = 0.5$

**d**  $\cos\left(\frac{x}{2}\right) = 0.5$

**e**  $\tan 2x = 1$

**f**  $\cos 2\theta = -0.6$

**g**  $\tan 2\theta = -0.5$

**h**  $\tan\left(\frac{\theta}{2}\right) = \sqrt{3}$

**i**  $\sin 4x = \frac{\sqrt{2}}{2}$

**j**  $\tan\left(\frac{\theta}{3}\right) = 0.3$