

## Section 2: Trigonometric equations

### Exercise level 1

- Solve the following equations for  $0^\circ \leq x \leq 360^\circ$ .
  - $\sin x = 0.3$
  - $\tan x = 1.5$
  - $\cos x = -0.7$
  - $\sin x = -0.6$
- Find all of the values for  $x$  between  $-180^\circ$  and  $180^\circ$  such that
  - $\sin x = 0.6$
  - $\cos x = 0.8$
  - $\tan x = -0.6$
  - $\cos x = -0.3$
- Without using a calculator find values for  $x$  between  $0^\circ$  and  $360^\circ$  such that
  - $\sin x = \frac{1}{\sqrt{2}}$
  - $\sin x = -\frac{1}{2}$
  - $\cos x = \frac{\sqrt{3}}{2}$
  - $\cos x = -\frac{1}{\sqrt{2}}$
- Solve, for  $0^\circ \leq x \leq 360^\circ$ 
  - $\cos x + \frac{3}{2} = 2$
  - $\tan^2 x = 3$
  - $2\sin^2 x - 1 = \frac{1}{2}$
  - $\cos^2 x + 2 = \frac{5}{4}$