

## Solving simultaneous equations

- solve simultaneous equations in two unknowns by substitution
- solve simultaneous equations in two unknowns by elimination

**Problem 1.** Solve the following equations for  $x$  and  $y$ ,

(a) by substitution and

(b) by elimination

$$x + 2y = -1 \quad (1)$$

$$4x - 3y = 18 \quad (2)$$

**Problem 2.** Solve for  $x$  and  $y$ , by a substitution method, the simultaneous equations

$$3x - 2y = 12 \quad (1)$$

$$x + 3y = -7 \quad (2)$$

**Problem 3.** Use an elimination method to solve for  $x$  and  $y$ , the following simultaneous equations

$$3x + 4y = 5 \quad (1)$$

$$2x - 5y = -12 \quad (2)$$

# Calculator Practice revision

Use your calculator to

1. Evaluate  $\cos 63.74^\circ$  correct to 4 decimal places
2. Evaluate  $\tan 39.55^\circ - \sin 52.53^\circ$  correct to 3 decimal places
3. Evaluate  $\sin(0.437 \text{ rad})$  correct to 4 decimal places
4. Evaluate  $\frac{\sin 67^\circ - \sin 43^\circ}{\sin 10^\circ}$  correct to 3 decimal places

Use your calculator to

1. Evaluate  $2.7(\pi - 1)$  correct to 3 significant figures
2. Evaluate  $\pi^2(\sqrt{13} - 1)$  correct to 4 significant figures
3. Evaluate  $3e^{(2\pi-1)}$  correct to 3 significant figures
4. Evaluate  $\sqrt{\left[\frac{5.52\pi}{2e^{-2} \times \sqrt{26.73}}\right]}$  correct to 4 significant figures

# الأبجدية الإغريقية

اللفظ العربي	اللفظ الانكليزي	اغريقي كبير	اغريقي صغير	اللفظ العربي	اللفظ الانكليزي	اغريقي كبير	اغريقي صغير
نيو	Nu	N	ν	ألفا	Alpha	A	α
كساي	Xi	Ξ	ξ	بيتا	Beta	B	β
أوميكرون	Omicron	O	ο	غَمَّا	Gamma	Γ	γ
پاي	Pi	Π	π	دِلْتا	Delta	Δ	δ
رُو	Rho	Ρ	ρ	إِبْسِلُون	Epsilon	E	ε
سِغْمَا	Sigma	Σ	σ	زِيتَا	Zeta	Z	ζ
تاو	Tau	T	τ	إِيتَا	Eta	H	η
يُوبِيسِلُون	Upsilon	Υ	υ	ثِيتَا	Theta	Θ	θ
فاي	Phi	Φ	φ	أَيُوتَا	Iota	I	ι
كاي	Chi	Χ	χ	كَبَّا	Kappa	K	κ
پِيساي	Psi	Ψ	ψ	لَمْدَا	Lambda	Λ	λ
أُومِغَا	Omega	Ω	ω	مِيو	Mu	M	μ