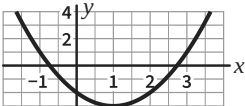
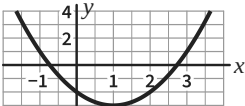


a Solve $x^2 = 49$ $X = 7 \text{ or } X = -7$ a square number has two roots	b Solve $(x - 3)(x + 5) = 0$ $X = 3 \text{ or } X = -5$ each bracket equal to zero	c Solve $x^2 + 7x + 12 = 0$ $X = -3 \text{ or } X = -4$ factorise, then solve	d Solve $x^2 - 5x = 0$ $X = 0 \text{ or } X = 5$ a common factor: $x = 0$ is a root
e Solve $x^2 + x = 12$ $X = 3 \text{ or } X = -4$ make it equal zero first	f Use the graph to solve $x^2 - 2x - 2 = 0$  $X \approx -0.7 \text{ or } 2.7$ read the roots off a graph	g Solve $2x^2 + 7x + 3 = 0$ $X = -\frac{1}{2} \text{ or } X = -3$ factorise with $2x^2$ (a is not 1)	h Solve $(x + 3)^2 = 5$ $X = -3 \pm \sqrt{5}$ square root both sides: $\pm$ a surd
i Solve $x^2 - 4x - 3 = 0$ by completing the square $X = 2 \pm \sqrt{7}$ solve by completing the square	j Solve $3x^2 - 5x + 1 = 0$ $X = \frac{5 \pm \sqrt{13}}{6}$ the quadratic formula	k Solve $x + \frac{6}{x} = 5$ $X = 2 \text{ or } X = 3$ clear a fraction first	l Solve $(x - 2)^2 = 3(x - 2)$ $X = 2 \text{ or } X = 5$ a bracket on both sides: do not divide

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