

# Quadratic equation

Q1. Solve the following equations.

**a**  $3x^2 + 8x - 3 = 0$

$x = \underline{\hspace{2cm}}$  or  $\underline{\hspace{2cm}}$

**c**  $5x^2 - 9x - 2 = 0$

$x = \underline{\hspace{2cm}}$  or  $\underline{\hspace{2cm}}$

**e**  $4m^2 + 9m = 0$

$m = \underline{\hspace{2cm}}$  or  $\underline{\hspace{2cm}}$

**b**  $6x^2 - 5x - 4 = 0$

$x = \underline{\hspace{2cm}}$  or  $\underline{\hspace{2cm}}$

**d**  $4t^2 - 4t - 35 = 0$

$t = \underline{\hspace{2cm}}$  or  $\underline{\hspace{2cm}}$

**f**  $25m^2 - 49 = 0$

$m = \underline{\hspace{2cm}}$  or  $\underline{\hspace{2cm}}$

Q2. Rearrange into the general form then solve the following equations.

**a**  $x^2 + 10x = -24$

$x = \underline{\hspace{2cm}}$  or  $\underline{\hspace{2cm}}$

**b**  $x^2 - 18x = -32$

$x = \underline{\hspace{2cm}}$  or  $\underline{\hspace{2cm}}$

**c**  $(p + 1)(p - 2) = 40$

$p = \underline{\hspace{2cm}}$  or  $\underline{\hspace{2cm}}$

**d**  $13p^2 = 11 - 2p$

$p = \underline{\hspace{2cm}}$  or  $\underline{\hspace{2cm}}$

**e**  $t^2 + 7t = 30$

$t = \underline{\hspace{2cm}}$  or  $\underline{\hspace{2cm}}$

**f**  $t^2 - 7t + 4 = 48$

$t = \underline{\hspace{2cm}}$  or  $\underline{\hspace{2cm}}$

**g**  $t^2 = 17t - 72$

$t = \underline{\hspace{2cm}}$  or  $\underline{\hspace{2cm}}$

**h**  $t^2 - t + 1 = 73$

$t = \underline{\hspace{2cm}}$  or  $\underline{\hspace{2cm}}$

**i**  $8p - 16 - p^2 = 0$

$p = \underline{\hspace{2cm}}$  or  $\underline{\hspace{2cm}}$

**j**  $(2n + 1)(5n + 2) = (2n - 2)(n - 2)$

$n = \underline{\hspace{2cm}}$  or  $\underline{\hspace{2cm}}$

**k**  $6x^2 + 30 = 5 - 3x^2 - 30x$

$x = \underline{\hspace{2cm}}$  or  $\underline{\hspace{2cm}}$

**l**  $4x^2 + 4x - 49 = 4x$

$x = \underline{\hspace{2cm}}$  or  $\underline{\hspace{2cm}}$