

Quad 2 Answers

Solving equations using quadratic formula p.12-13

$$1a) 3x^2 + 7x + 2 = 0$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$= \frac{-7 \pm \sqrt{7^2 - 4 \times 3 \times 2}}{6}$$

$$= \frac{-7 \pm \sqrt{49 - 24}}{6}$$

$$= \frac{-7 \pm \sqrt{25}}{6}$$

$$= \frac{-7 \pm 5}{6}$$

$$= -\frac{1}{3}, -2$$

$$b) 2a^2 + 5a + 2 = 0$$

$$x = -\frac{1}{2}, -2$$

$$d) 2p^2 + 11p + 9 = 0$$

$$p = -1, -\frac{9}{2}$$

$$f) d = -\frac{2}{3}, -3$$

$$h) a = \frac{3}{2}, 1$$

$$j) b = 1, \frac{2}{5}$$

$$l) y = 2, \frac{3}{4}$$

$$n) a = \frac{3}{2}, -1$$

$$p) c = \frac{1}{2}, -4$$

$$r) w = \frac{2}{3}, -4$$

$$c) 3c^2 + 8c + 5 = 0$$

$$x = -1, -\frac{5}{3}$$

$$e) 2y^2 + 11y + 5 = 0$$

$$y = -\frac{1}{2}, -5$$

$$g) x = \frac{1}{2}, 3$$

$$i) p = 3, \frac{2}{5}$$

$$k) x = \frac{2}{3}, \frac{1}{2}$$

$$m) x = 1, -\frac{1}{3}$$

$$o) p = \frac{3}{2}, -\frac{1}{2}$$

$$q) y = 2, -\frac{1}{6}$$

Quad 2 Answers

$$2a) x^2 + 5x + 5 = 0$$

$$\begin{aligned} x &= \frac{-5 \pm \sqrt{5^2 - (4 \times 1 \times 5)}}{2} \\ &= \frac{-5 \pm \sqrt{25 - 20}}{2} \\ &= \frac{-5 \pm \sqrt{5}}{2} \\ &= -1.38, -3.62 \end{aligned}$$

$$3a) 3x^2 + 8x + 5 = 0$$

$$\begin{aligned} x &= \frac{-8 \pm \sqrt{8^2 - (4 \times 3 \times 5)}}{6} \\ &= \frac{-8 \pm \sqrt{64 - 60}}{6} \\ &= \frac{-8 \pm 2}{6} \\ &= -1, -1.67 \end{aligned}$$

$$b) b = -0.23, -8.77$$

$$d) c = -0.59, -3.41$$

$$f) a = -0.68, -7.32$$

$$h) q = 11.66, 0.34$$

$$j) d = 4.56, 0.44$$

$$l) m = 6.37, 0.63$$

$$n) k = 1.16, -5.16$$

$$b) b = -0.24, -2.76$$

$$d) c = -0.15, 1.65$$

$$f) a = -0.26, -1.54$$

$$h) q = -0.23, 3.23$$

$$j) d = 1.45, 0.55$$

$$l) m = -0.35, 4.35$$

$$n) k = -1.09, 0.76$$

$$p) t = -2.93, 0.68$$

$$r) z = 1.68, -2.68$$

$$c) p = -0.27, -3.73$$

$$e) y = -0.49, -6.54$$

$$g) z = 4.79, 0.21$$

$$i) w = 6.65, 0.35$$

$$k) x = 2.62, 0.38$$

$$m) y = 0.36, -8.36$$

$$o) c = 2.16, -4.16$$

$$c) p = -0.22, -2.28$$

$$e) y = -0.57, -1.77$$

$$g) z = 0.70, 0.18$$

$$i) w = 1.58, 0.42$$

$$k) x = 1.24, 0.16$$

$$m) y = 0.22, -1.82$$

$$o) c = 0.23, -0.43$$

$$q) a = -0.47, 0.90$$

Quad 2 Answers

$$4a) x^2 + 5x + 3 = 0$$

$$x = \frac{-5 \pm \sqrt{25 - (4 \cdot 1 \cdot 3)}}{2}$$

$$= \frac{-5 \pm \sqrt{25 - 12}}{2}$$

$$= -0.697, -4.30$$

$$s) 8x^2 + 8x = -1$$

$$8x^2 + 8x + 1 = 0$$

$$x = -0.146, -0.854$$

$$v) 7m^2 = 6m - 1$$

$$7m^2 - 6m + 1 = 0$$

$$m = 0.631, 0.227$$

$$b) c = -0.382, -2.62$$

$$d) y = -1.21, -5.79$$

$$f) a = -0.551, -5.45$$

$$h) z = 8.53, 0.47$$

$$j) x = 9.69, 0.810$$

$$l) w = 3.41, 0.586$$

$$n) d = 1.23, -12.2$$

$$p) a = 1.85, -4.85$$

$$r) c = 2.27, -5.27$$

$$t) 5b^2 + 3b = 9$$

$$5b^2 + 3b - 9 = 0$$

$$b = 1.07, -1.67$$

$$w) 3x^2 = 8 - 3x$$

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

$$x = 1.21, -2.21$$

$$c) m = -0.258, -7.74$$

$$e) p = -0.354, -5.65$$

$$s) b = 5.37, -0.372$$

$$i) a = 6.19, 0.807$$

$$k) c = 6.83, 1.17$$

$$m) k = 1.48, -13.5$$

$$o) s = 1.74, -9.74$$

$$q) y = 2.46, -4.46$$

$$u) 2p^2 - 9p = 3$$

$$2p^2 - 9p - 3 = 0$$

$$p = 4.81, -0.312$$

$$x) 4c^2 = 9 + 3c$$

$$4c^2 - 3c - 9 = 0$$

$$c = 1.92, -1.17$$