

Quadratic Formula

N5 Maths Exam Questions

The roots of $ax^2 + bx + c = 0$ are $x = \frac{-b \pm \sqrt{(b^2 - 4ac)}}{2a}$

Source: 2019 P2 Q6 N5 Maths

- (1) Solve the equation $3x^2 + 9x - 2 = 0$.
Give your answers correct to 1 decimal place.

Answers: $-3.2, 0.2$

Source: 2018 P1 Q19(b) N5 Maths

- (2) The roots of the equation $x^2 - 6x - 81 = 0$ can be expressed in the form $x = d \pm d\sqrt{e}$.
Find, algebraically, the values of d and e .

Answers: $d = 3, e = 10$

Source: 2017 P2 Q4 N5 Maths

- (3) Solve the equation $2x^2 + 5x - 4 = 0$.
Give your answers correct to one decimal place.

Answers: $x = -3.1, x = 0.6$

Source: Practice A P2 Q8b N5 Maths

(4)

Use an appropriate formula to solve the quadratic equation

$$3x^2 + 3x - 7 = 0.$$

Give your answers correct to 1 decimal place.

Answers: $x = -2.1$, $x = 1.1$

Source: Practice C P2 Q6 N5 Maths

(5)

Find the roots of the equation

$$2x^2 + 4x - 9 = 0.$$

Give your answers correct to one decimal place.

Answers: $x = -1.8$, $x = 0.3$

Source: 2005 P2 N5 Maths

(6)

Solve the equation

$$x^2 + 2x = 9.$$

Give your answers **correct to 1 decimal place.**

Answers: $x = -4.2$, $x = 2.2$