EXAM PAPERS PRACTICE

Quadratic Equations

Question Paper

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Question 1

Solve the equation $3x^2 - 11x + 4 = 0$.
Show all your working and give your answers correct to 2 decimal places. [4]

Question 2

Solve the equation $5x^2 - 6x - 3 = 0$.
Show all your working and give your answers correct to 2 decimal places. [4]

Question 3

Solve the equation $3x^2 + 4x - 5 = 0$.
Show all your working and give your answers correct to 2 decimal places. [4]

Question 4

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$f(x) = x^2 + 4x - 6$

(a) $f(x)$ can be written in the form $(x + m)^2 + n$.

Find the value of m and the value of n. [2]

(b) Use your answer to **part (a)** to find the positive solution to $x^2 + 4x - 6 = 0$. [2]

Question 5

Solve the equation.

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

Show your working and give your answers correct to 2 decimal places. [4]

Question 6

Use the quadratic equation formula to solve

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

Show all your working and give your answers correct to 2 decimal places. [4]

Question 7

Solve the equation $2x^2 + 6x - 3 = 0$.

Show your working and give your answers correct to 2 decimal places. [4]

Question 8

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Solve the equations

(a) $\frac{2x}{3} - 9 = 0$, [2]

(b) $x^2 - 3x - 4 = 0$. [2]

Question 9

Solve the equation

$$x^2 + 4x - 22 = 0 .$$

Give your answers correct to 2 decimal places.

Show all your working. [4]

Question 10

Solve the equation $5x^2 + 10x + 2 = 0$.
You must show all your working and give your answers correct to 2 decimal places. [4]

Question 11

Solve the equation $2x^2 + 3x - 3 = 0$.
Show all your working and give your answers correct to 2 decimal places. [4]

Question 12

Solve $(x - 7)(x + 4) = 0$. [1]

Question 13

(a) Factorise $3x^2 + 2x - 8$. [2]

(b) Solve the equation $3x^2 + 2x - 8 = 0$. [1]

Question 14

The solutions of the equation $x^2 - 6x + d = 0$ are both integers.

d is a prime number.

Find d. [3]

Question 15

Solve the equation $2x^2 + 3x - 6 = 0$.
Show all your working and give your answers correct to 2 decimal places. [4]

Question 16

Solve the equation.

$$x^2 - 8x + 6 = 0$$

Show all your working and give your answers correct to 2 decimal places. [4]