



CSEE- Basic Maths

Quadratic Equations

Questions and Answers

Videos with expert tutorials on each topic

CSEE Basic Maths

Revision Topic: Quadratic Equations

Section A

Lesson 11: (Revision Week 4)

Instructions: Complete this worksheet and watch this revision video simultaneously on

www.mathsmemory.co.uk/International

Pause and Play the video unlimited times to review your work and write the answers in the blank spaces.

Once you have written your answers, check these with the tutorial answers, as explained in the video.

Self Assess yourself (Out of 10) on your **revision planner** after you have completed the revision video .



Question 1

a) Factorise

$$12x^2 + 15x$$

b) Factorise

$$18x^2y^3 - 12xy^2$$

Bronze





Core 2 - Bronze Topic: Quadratic Equations

Question 2

Simplify

a) $\frac{x^2 + x - 12}{x^2 - 9}$

Bronze



Core 3 - Bronze Topic: Quadratic Equations

Question 3

Simplify

$$\frac{2}{x} + \frac{3}{y}$$

Bronze



Question 4

Simplify

$$\frac{1}{x} + \frac{2}{x^2}$$

Bronze



Question 5

a) Factorise $3x^2 + 4x - 4$

Hence solve $3x^2 + 4x - 4 = 0$

b) Solve $6x^2 - 7x - 3 = 0$

c) Solve $8x^2 - 12x$

SILVER



Question 6

Solve

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

Give your solutions correct to 3 significant figures.

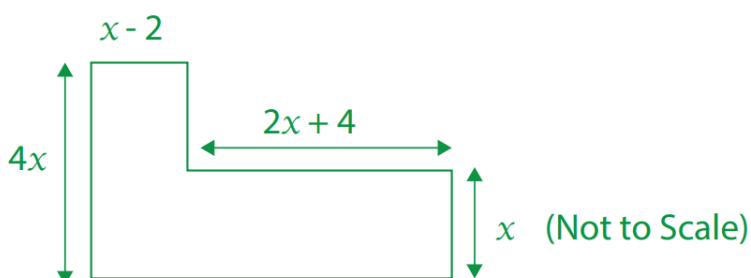


Calculator

Question 7

The area of the shape is 40cm^2 .

a) Show that $3x^2 - 2x - 20 = 0$.



b) Solve $3x^2 - 2x - 20 = 0$.

Give your solutions correct to 3 significant figures.

c) Hence, work out the shortest side.



Calculator

Solve

$$\frac{x}{2} - \frac{2}{x+3} = 4$$

Write answer to 3 significant figures.



Calculator

a) Write $x^2 - 3x - 2$ in the form $(x + p)^2 + q$

b) Hence find the roots of $x^2 - 3x - 2 = 0$. Give your answer in surd form.



Question 10

- a) Find two consecutive even numbers whose product is 168.



Question 11

- a) The sum of the squares of two consecutive positive numbers is 41. Find the numbers.



Core 12- Gold Topic: Quadratic Equations

Question 12

Sam is five years younger than Joanne. In 2 years to come, the product of their ages will be 126 years.

Formulate a quadratic equation representing this information and present their ages.

Work out their ages

Sam:_____

Joanne :_____



Core 13 - Platinum Topic: Quadratic Equations

Question 13

a) Two numbers differ by 4.If the sum of their reciprocals is $\frac{2}{3}$, find the numbers.



Question 14

a) Two numbers differ by 4. If the sum of their reciprocals is $\frac{2}{3}$, find the numbers.

Platinum

