EXAM PAPERS PRACTICE

GCSE OCR Math J560

Quadratic Formula

Question Paper

"We will help you to achieve A Star "

Question 1

Solve $3x^2 - 5x - 1 = 0$

Give your solutions correct to 3 significant figures.

[3 marks]

Question 2

Solve $3x^2 + 6x - 2 = 0$

Give your solutions correct to 2 decimal places.

[3 marks]

Question 3

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

Give your solutions correct to 2 decimal places.

[3 marks]

Question 4

Solve $5x^2 + 2x - 4 = 0$

Give your solutions correct to 3 significant figures.

Show your working clearly.

[3 marks]

Question 5

Solve $3x^2 - 4x - 2 = 0$

Give your solutions correct to 3 significant figures.

[3 marks]

Question 6

Solve the equation $3x^2 + 4x - 12 = 0$

Give your solutions correct to 2 decimal places.

[3 marks]

Question 7

Solve $3x^2 - x - 1 = 0$

Give your solutions correct to 2 decimal places.

[3 marks]

Question 8

Solve $x^2 - 5x + 3 = 0$

Give your solutions correct to 3 significant figures.

[3 marks]

Question 9

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

Give your solutions correct to 3 significant figures.

Show your working clearly.

[3 marks]

Question 10

(b) Work out the value of x.

[3 marks]

Question 11

(a) Solve $2x^2 + 9x - 7 = 0$

Give your solutions correct to 3 significant figures.

[3 marks]

Question 12

Clare buys some shares for $50x$.
Later, she sells the shares for $(600 + 5x)$.
She makes a profit of $x\%$

(a) Show that $x^2 + 90x - 1200 = 0$

[3 marks]
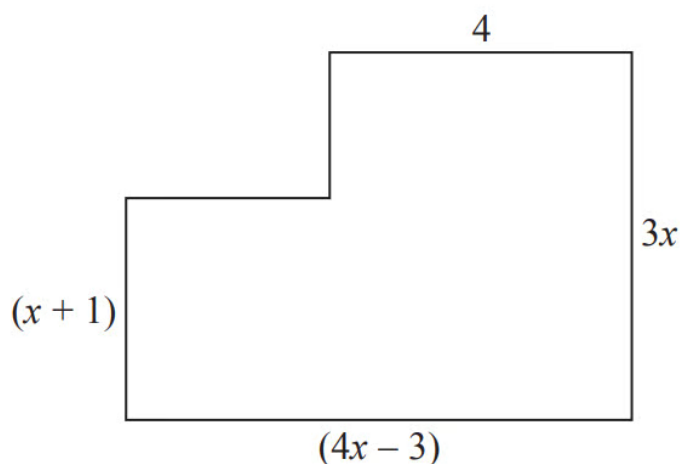
Question 13

Here is a hexagon.

Diagram **NOT**
accurately drawn

In the diagram, all the measurements are in centimetres.
All the corners are right angles.

The area of the hexagon is 40 cm²

(a) Show that $4x^2 + 9x - 47 = 0$
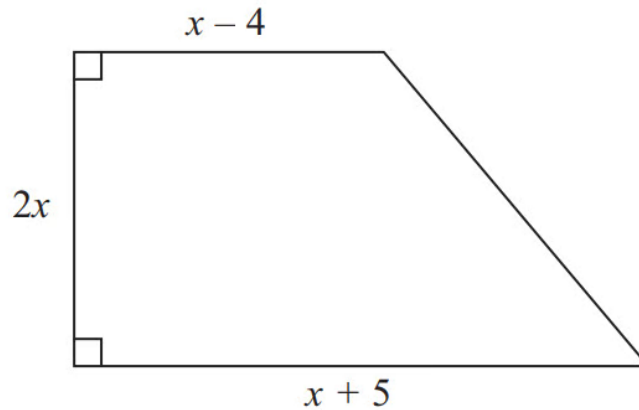
[3 marks]

Question 14

The diagram shows a trapezium.

$x - 4$

Diagram **NOT** accurately drawn

$2x$

$x + 5$

All the measurements are in centimetres.

The area of the trapezium is 351 cm².

(a) Show that $2x^2 + x - 351 = 0$

[2 marks]

Question 15

Alison is using the quadratic formula to solve a quadratic equation.
She substitutes values into the formula and correctly gets

$$x = \frac{-7 \pm \sqrt{49 - 32}}{4}$$

Work out the quadratic equation that Alison is solving.
Give your answer in the form $ax^2 + bx + c = 0$, where a, b and c are integers.

[3 marks]