Name:

Exam Style Questions

Quadratic Formula

Corbettmaths

Equipment needed: Calculator, pen

Guidance

1. Read each question carefully before you begin answering it.
2. Check your answers seem right.
3. Always show your workings

Video Tutorial

www.corbettmaths.com/contents

Video 267

Answers and Video Solutions

1. Write down the quadratic formula.

x = ...

(1)

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2. Solve the equation $x^2 + 5x + 1 = 0$

Give your answers to one decimal place.

x = ... or x = ...

(3)

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3. Solve the equation $2x^2 + 6x + 1 = 0$

Give your answers to two decimal places.

x = ... or x = ...

(3)

4. Solve the equation $4x^2 + x - 7 = 0$

Give your answers to two decimal places.

x = ... or x = ...

(3)

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5. Solve the equation $x^2 - 2x - 9 = 0$

Give your answers to two decimal places.

x = ... or x = ...

(3)

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6. Solve the quadratic equation $7x^2 - 25x + 2 = 0$

Give your answers to two decimal places.

.....

(3)

7. Solve the equation $3x^2 + 10x + 5 = 7$

Give your answers to two decimal places.

.....

(3)

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8. Solve the equation $11x^2 = 7 - 2x$

Give your answers to two decimal places.

.....

(3)

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9. Solve the equation $12x^2 - 13x + 4 = 13x^2 - 5x + 1$

Give your answers to one decimal place.

.....

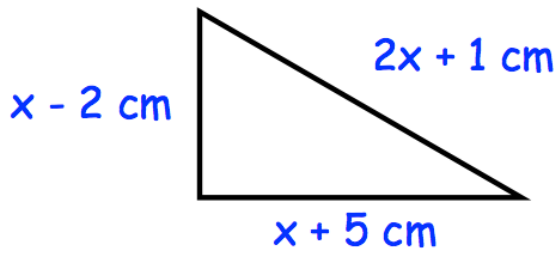
(3)

10. A rectangular field is 15m longer than it is wide.
The area of the field is 800m²

Work out the length of the field.
Give your answer to 1 decimal place.

.....m
(4)

11.



Shown above is a right angled triangle.

(a) Show that $x^2 - x - 14 = 0$

(3)

(b) Find x.

.....cm
(3)

12. Solve, giving your answers to two decimal places.

$$\frac{7}{m+9} = m + 10$$

m = ... or m = ...

(3)

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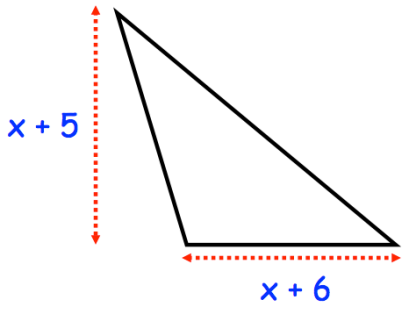
13. Shown is a triangle with area 19cm².



Find the value of x

.....

(4)

14. Jack is solving a quadratic equation in the form $x^2 + bx + c = 0$

He has got to this point in his working out

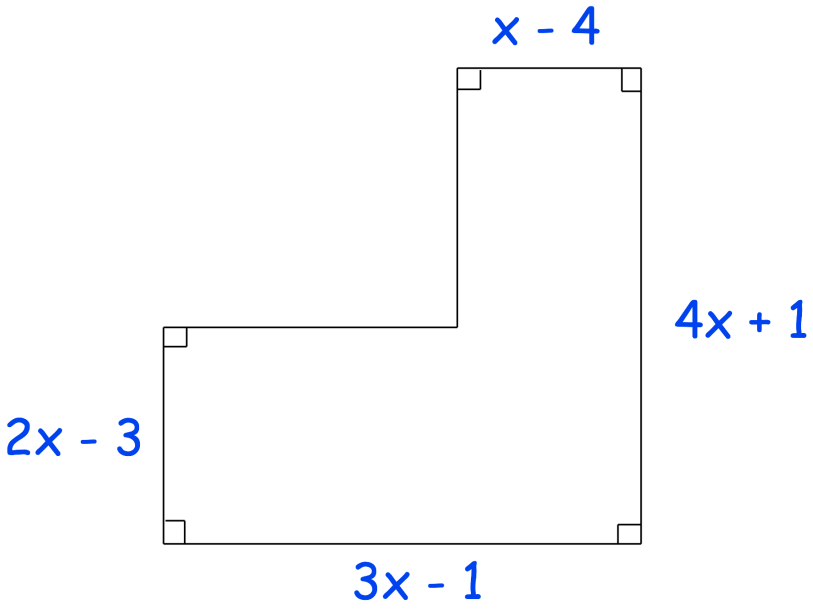
$$x = \frac{5 \pm \sqrt{53}}{2}$$

Find the values of b and c.

b = ... c = ...

(3)

15. The area of the shape below is 100cm²



(a) Show that $8x^2 - 15x - 113 = 0$

(3)

(b) Find the perimeter of the shape

.....cm

(5)