

RELATIONSHIPS HOMEWORK 4

Non calculator:

Express $x^2 + 8x - 7$ in the form $(x + a)^2 + b$.

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Calculator

Solve the equation

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

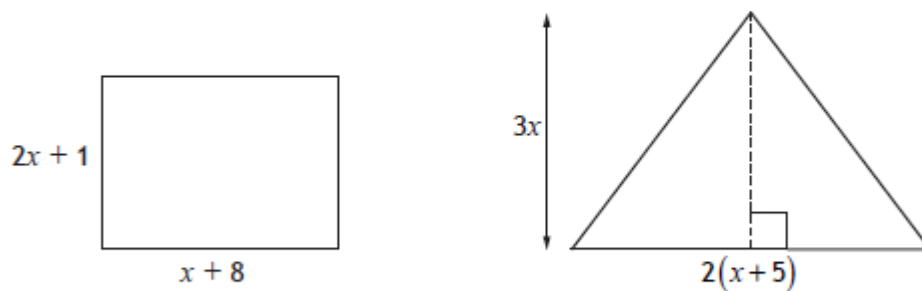
Give your answers **correct to 1 decimal place**.

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Challenge Question (Non-calculator):

The diagrams below show a rectangle and a triangle.

All measurements are in centimetres.



(a) Find an expression for the area of the **rectangle**.

1

(b) Given that the area of the rectangle is equal to the area of the triangle, show that $x^2 - 2x - 8 = 0$.

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(c) Hence find, **algebraically**, the length and breadth of the rectangle.

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