Solving by Completing the Square

Worked Examples (a = 1):

1.

2.

3.

4.

More complicated examples (a not equal to 1):

1. Express in the form

2. Express in the form

Test Your Understanding:

1. Express in the form

2. Express in the form

Solving by Completing the Square:

**Note**: Previously we factorised out the 3. This is because on its own is an **expression,** so dividing by 3 (instead of factorising) would change the expression. However, in an equation, we can divide both sides by 3 without affecting the solutions.

Example

Solve the equation by completing the square.

Proving the Quadratic Formula:

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