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Solving Quadratic Equations Using Factorisation

Student Worksheet

Questions & Working Space

IGCSE Mathematics

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Name: _____

Date: _____

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Note

How to use this worksheet. These questions are built *strictly* on the *Solving Quadratic Equations Using Factorisation* notes: the zero product property, monic quadratics ($a = 1$), non-monic quadratics ($a \neq 1$) by splitting the middle term, the difference of two squares, perfect square trinomials, rearranging into standard form, and applied problems.
Working space. Ruled lines are provided after each question — show *all* of your working there. Always rearrange to $= 0$ first, check for a common factor, write the factorised form, and give *both* solutions joined by the word "or". Harder questions have a teal **Hint** box; try the question first and use the hint only if you are stuck.
Checking your answers. Full step-by-step solutions, a marking scheme for the exam paper, and a quick answer key are in the separate booklet *"Solving Quadratic Equations Using Factorisation — Solutions & Answer Key."* Try each question honestly before you look.

1 Part I — Topic-by-Topic Exercises

1.1 The Zero Product Property

Exercise Z1 *[Basic]*

Solve $(x - 7)(x + 2) = 0$.

Exercise Z2 *[Basic]*

Solve $(x + 9)(x + 5) = 0$.

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Exercise Z3 *[Standard]*

Solve $x(x-15)=0$, and explain why it would be wrong to divide both sides by x.

Exercise Z4 *[Standard]*

Solve $(3x-8)(x+4)=0$, giving any fractional answer in its simplest form.

Exercise Z5 *[Intermediate]*

Solve $(2x+7)(5x-3)=0$.

Hint

Set each bracket to zero separately. Each gives a linear equation — solve them one at a time.

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Preview ends here

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