

# Quadratic Expressions, Double Brackets, Factorising and Changing the Subject

Year 10 · Algebra · y10-alg-substitute

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Class: \_\_\_\_\_

Score: \_\_\_\_ / \_\_\_\_

## Instructions

Answer every question in Practice. Try the Challenge section once Practice is complete. 10 questions in total.

## Practice

1. Expand the brackets in:  $(x + 3)(x + 5)$ .

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2. Factorise:  $x^2 + 7x + 12$ .

\_\_\_\_\_

3. Multiply out:  $(x - 2)(x + 6)$ .

\_\_\_\_\_

4. Write as a product of factors:  $x^2 - 9x + 20$ .

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5. Make  $x$  the subject of the formula  $y = 3x + 7$ .

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6. Multiply every term in the first bracket by every term in the second bracket. Expand:  $(x + 4)(x - 3)$ .

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7. Find two numbers that multiply to give the constant and add to give the coefficient of  $x$ .  
Factorise:  $x^2 + 5x + 6$ .

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8. To make  $x$  the subject of  $y = 2(x + 5)$ , first divide both sides by 2, then subtract 5. Make  $x$  the subject.

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## Challenge

1. Expand and simplify:  $(x + 3)(x - 3)$ .

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2. Factorise fully:  $2x^2 + 10x + 12$ .

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