

**YEAR 11**

Simultaneous Equations

Two equations, two unknowns. Eliminate one letter by adding or subtracting, find the other, then substitute back. Always check both equations at the end.

Name: _____

Date: _____

Score: _____

Section A · Solving by elimination

Make the coefficients of one letter match, then add or subtract.

① $x + y = 10$
 $x - y = 4$

② $2x + y = 11$
 $x + y = 7$

③ $3x + 2y = 16$
 $x + 2y = 8$

④ $4x + 3y = 18$
 $2x - 3y = 0$

⑤ $5x + 2y = 24$
 $3x - 2y = 8$

⑥ $2x + 3y = 13$
 $3x - y = 3$

⑦ $x + 4y = 14$
 $3x - 2y = 0$

8 $6x + y = 15$
 $2x + y = 7$

Section B • Forming your own equations

Define your letters first, then write one equation per sentence.

- 1 Three coffees and two teas cost £11.50. One coffee and two teas cost £6.50.
Find the cost of one coffee and the cost of one tea.
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- 2 Five apples and three pears cost £3.10. Two apples and three pears cost £1.60.
Find the cost of one apple and the cost of one pear.
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- 3 Two adult tickets and three child tickets cost £60. One adult ticket and one child ticket cost £23. Find the price of each ticket.
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- 4 Four pens and two rulers cost £50. One pen and one ruler cost £18. Find the cost of each.
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