

# Solving equations with the unknown on both sides

Grade 4 | Foundation and Higher | 11 questions, 37 marks

**GCSE Maths topic practice**



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

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

**Score:** \_\_\_\_\_ / 37

**1** Solve  $4x + 3 = x + 18$

(2 marks)

Answer \_\_\_\_\_

**2** Solve  $5x - 8 = 2x + 10$

(3 marks)

Answer \_\_\_\_\_

**3** Solve  $7x - 5 = 3x + 23$

(3 marks)

Answer \_\_\_\_\_

**4** Solve  $2x + 9 = 5x + 21$

(3 marks)

Answer \_\_\_\_\_

**5** Solve  $5(x - 2) = 3x + 8$

(3 marks)

Answer \_\_\_\_\_

**6** Solve  $\frac{4x + 1}{3} = x + 3$

(3 marks)

Answer \_\_\_\_\_

- 7** Sam and Tia each think of the same number.  
Sam multiplies his number by 4 and then subtracts 7.  
Tia multiplies her number by 2 and then adds 9.  
They both get the same answer. Work out their number.

(3 marks)

Answer \_\_\_\_\_

- 8** a. Solve  $2(3x + 4) = 5x + 17$   
b. Factorise fully  $6y^2 + 9y$

(4 marks)

Answer \_\_\_\_\_

- 9** a. Solve  $9 - 2x = 3(x - 7)$   
b. Simplify  $(m^5)^2 \div m^3$

(4 marks)

Answer \_\_\_\_\_

- 10** a. Simplify  $4a + 3b - a + 5b$   
b. Solve  $\frac{5x - 4}{2} = 18$   
c. Solve  $4(y + 3) = 2y + 22$

(5 marks)

Answer \_\_\_\_\_

**11** A square has sides of length  $(3x + 2)$  cm. A regular pentagon has sides of length  $(x + 10)$  cm.

The square and the pentagon have the same perimeter.

Work out the length of one side of the square.

(4 marks)

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Answer

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End of questions | Total 37 marks