Solving equations

Year 9 | Key Stage 3 | 12 questions, 38 marks

KS3 Maths topic practice

Scan for the solutions

Name: _____ **Date:** _____ **Score:** _____ **/ 38**

1 a. Write down the inverse of each operation.

(i) add 7 (ii) multiply by 4 (iii) divide by 3

b. Mia thinks of a number. She multiplies it by 3 and then adds 8. Her answer is 29.
Use inverse operations to work out Mia's number.

(3 marks)

Answer _____

2 a. Solve $p + 9 = 4$

b. Solve $5q = -30$

c. Solve $r - 3 = -10$

(3 marks)

Answer _____

3 Solve $5x - 7 = 23$

(2 marks)

Answer _____

4 a. Make x the subject of $y = x + 9$

b. Make a the subject of $P = 4a$

c. Make m the subject of $k = 3m - 2$

(3 marks)

Answer _____

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5 Solve $3(x + 4) = 27$

(2 marks)

Answer _____

6 Solve

a. $5(2x - 3) = 25$

b. $4(x + 6) = 10$

(3 marks)

Answer _____

7 Priya thinks of a number.

She multiplies the number by 4 and then subtracts 9.

Her answer is 35.

Work out the number Priya thought of.

(3 marks)

Answer _____

8 Ollie buys 4 cinema tickets and one large popcorn.

Each ticket costs £t. The popcorn costs £6.

He pays £38 altogether.

a. Write an equation in t.

b. Solve your equation to find the cost of one ticket.

(3 marks)

Answer _____

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

(3 marks)

Answer _____

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10 Solve

a. $3(2x - 1) = 4x + 9$

b. $8 - 3x = 2x - 12$

(4 marks)

Answer _____

11 Amira and Josh collect football stickers. Every packet has the same number of stickers, n.

Amira has 5 full packets and 3 loose stickers.
Josh has 3 full packets and 19 loose stickers.

Amira and Josh have the same number of stickers.

Work out how many stickers Amira has.

(4 marks)

Answer _____

12 A rectangle has length $(2x + 5)$ cm and width $(x + 2)$ cm.

The perimeter of the rectangle is 38 cm.

Work out the area of the rectangle.

(5 marks)

Answer _____

End of questions | Total 38 marks

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