Solving equations and changing the subject

Year 8 | Key Stage 3 | 12 questions, 37 marks

KS3 Maths topic practice

Scan for the solutions

Name: _____ **Date:** _____ **Score:** _____ **/ 37**

1 Solve $\frac{w}{4} + 2 = 9$

(2 marks)

Answer _____

2 Solve

a. $x - 8 = -3$

b. $4x + 15 = 7$

c. $10 - 2x = 16$

(3 marks)

Answer _____

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

(3 marks)

Answer _____

4 Solve $3(2x - 5) - 2(x - 4) = -15$

(3 marks)

Answer _____

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

(3 marks)

Answer _____

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6 Dan and Ella share 45 sweets.

Ella gets 7 more sweets than Dan.

Dan says, "I got 20 sweets."

Is Dan right? You must show how you get your answer.

(3 marks)

Answer _____

7 Solve

a. $\frac{x}{2} + \frac{x}{3} = 10$

b. $\frac{3x - 2}{4} = \frac{x + 6}{2}$

(4 marks)

Answer _____

8 At a cinema, an adult ticket costs £4 more than a child ticket.

Mrs Adeyemi buys 2 adult tickets and 3 child tickets. She pays £38 altogether.

Work out the cost of one child ticket.

(3 marks)

Answer _____

9

a. Make r the subject of the formula $A = \pi r^2$

b. Make u the subject of the formula $v^2 = u^2 + 2as$

(4 marks)

Answer _____

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10 Make x the subject of the formula

$5(x + 2y) = w + 3x$

(3 marks)

Answer _____

11 Factorise

a. $x^2 + 7x + 12$

b. $x^2 - 2x - 15$

c. $x^2 - 81$

(3 marks)

Answer _____

12 Solve $x^2 - 5x - 24 = 0$

(3 marks)

Answer _____

End of questions | Total 37 marks

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