Algebra Toolkit

Question Paper

Course	Edexcel IGCSE Maths
Section	2. Equations, Formulae & Identities
Topic	Algebra Toolkit
Difficulty	Easy

Time allowed: 30

Score: /22

Percentage: /100

Question 1

You can work out the amount of medicine, c *ml*, to give to a child by using the formula

$$c = \frac{ma}{150}$$

m is the age of the child, in months.
a is an adult dose, in *ml*.

A child is 30 months old.
An adult's dose is 40 *ml*.

Work out the amount of medicine you can give to the child.

[2 marks]

Question 2

$f = 3g + 7h$

Work out the value of f when $g = -5$ and $h = 2$

[2 marks]

Question 3

Simplify $\quad 4y + 2x - 3 + 3x + 8$

[2 marks]

Question 4

Simplify $\quad 6g - 5h - 4g + 2h$

[2 marks]

Question 5

Simplify $\quad ab - 5g + 5ab - 2g$

[2 marks]

Question 6

Circle the expression that is equivalent to $3a - a \times 4a + 2a$

$$8a^2 + 2a \qquad\qquad 12a^2 \qquad\qquad 5a - 4a^2 \qquad\qquad 3a - 6a^2$$

[1 mark]

Question 7

Sofia is trying to simplify $\dfrac{6c+10}{2}$

Her method is

    divide $6c$ by 2
    then
    add 10

Evaluate her method.

[1 mark]

Question 8

$$y = \frac{10}{x}$$

If the value of x doubles, what happens to the value of y?
Circle your answer.

$$\div 2 \qquad\qquad \times 2 \qquad\qquad \div 5 \qquad\qquad \times 5$$

[1 mark]

Question 9

Simplify $3a + 7b - 4a + b$.

[2 marks]

Question 10

Simplify.

$$3a - 5b - a + 2b$$

[2 marks]

Question 11

Simplify $5c - d - 3d - 2c$.

[2 marks]

Question 12

Find the value of $7x + 3y$ when $x = 12$ and $y = -6$.

[2 marks]

Question 13

Complete the statement.

When $w = $ .... , $10w = 70$.

[1 mark]