

Simplifying Expressions and Collecting Like Terms

For Pearson Edexcel GCSE Mathematics (1MA1) • Foundation tier

Name _____

Total marks: **33**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method.

1 Simplify $t + t + t + t + t + t$

.....
(1)

(Total for Question 1 is 1 mark)

2 (a) Simplify $3 \times a \times 4$

.....
(1)

(b) Simplify $y \times y \times y$

.....
(1)

(c) Simplify $12p \div 4$

.....
(1)

(Total for Question 2 is 3 marks)

3 Simplify $8x - 3x + 2x$

.....
(1)

(Total for Question 3 is 1 mark)

4 Simplify $3d - 4e + 2d + e$

.....
(2)

(Total for Question 4 is 2 marks)

5 (a) Simplify $2c \times 3d$

.....
(1)

(b) Simplify $17 + 5b + 4c - 7b + c$

.....
(2)

(Total for Question 5 is 3 marks)

6 (a) Simplify $m \times m \times m \times m$

.....
(1)

(b) Simplify $m^3 + m^3$

.....
(1)

(c) Simplify $\frac{15a}{3}$

.....
(1)

(Total for Question 6 is 3 marks)

- 7** A pencil costs p pence.
A rubber costs r pence.

(a) Write down an expression, in terms of p and r , for the total cost, in pence, of 5 pencils and 2 rubbers.

.....
(1)

(b) Kofi buys 3 pencils and 1 rubber.
He pays with a £1 coin.

Write down an expression, in terms of p and r , for the change, in pence, Kofi should get.

.....
(1)

(Total for Question 7 is 2 marks)

- 8** Simplify $5g - 2h - 8g + 6h$

.....
(2)

(Total for Question 8 is 2 marks)

9 (a) Simplify $6k^2 + 9k^2 - 5k^2$

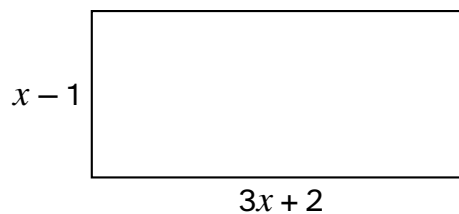
.....
(1)

(b) Simplify $(10w + 14w) \div 4$

.....
(1)

(Total for Question 9 is 2 marks)

- 10 The diagram shows a rectangle.
All measurements are in centimetres.



*Diagram **NOT** accurately drawn*

Find an expression, in terms of x , for the perimeter of the rectangle.
Give your answer in its simplest form.

..... cm
(2)

(Total for Question 10 is 2 marks)

11 Simplify $5x^2 + 3x - 2x^2 - 7x$

.....
(2)

(Total for Question 11 is 2 marks)

12 (a) Simplify $4y \times 2y$

.....
(1)

(b) Simplify $2a \times 5b \times 3a$

.....
(1)

(c) Simplify $3m \times m \times m + 3m$

.....
(1)

(Total for Question 12 is 3 marks)

- 13** Amir is $2x + 10$ years old.
Beth is $3x - 5$ years old.
Cora is $x + 25$ years old.

Find an expression, in terms of x , for the total of their three ages.
Give your answer in its simplest form.

..... years
(2)

(Total for Question 13 is 2 marks)

- 14** Ali simplifies $4x + 3y - x$
He gets the answer $6xy$
Ali is wrong.

Explain why Ali is wrong.

(1)

(Total for Question 14 is 1 mark)

- 15** $ABCD$ is a straight line.
All measurements are in centimetres.

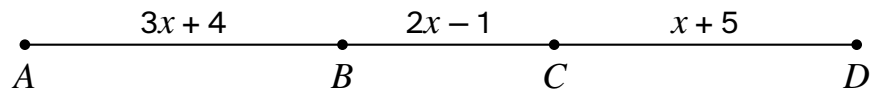


Diagram **NOT** accurately drawn

Find an expression, in terms of x , for the length AD .
Give your answer in its simplest form.

..... cm
(2)

(Total for Question 15 is 2 marks)

- 16** Simplify fully $3ab + 2a - ab + 4b - 5a$

.....
(2)

(Total for Question 16 is 2 marks)
