

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

## GCSE (1 – 9)

### Simplifying Algebra

#### Instructions

- Use **black** ink or ball-point pen.
- Answer all questions.
- Answer the questions in the spaces provided  
– *there may be more space than you need.*
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- You must **show all your working out.**

#### Information

- The marks for each question are shown in brackets  
– *use this as a guide as to how much time to spend on each question.*

#### Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end

1 Simplify  $3x + 4x - 2x$

.....  
**(Total for question 1 is 1 mark)**

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2 Simplify  $3m + 3m$

.....  
**(Total for question 2 is 1 mark)**

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3 Simplify  $n + n + n$

.....  
**(Total for question 3 is 1 mark)**

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4 (a) Simplify  $a \times b \times c$

.....  
(1)

(b) Simplify  $5p - 2p$

.....  
(1)

(c) Simplify  $\frac{6h}{3}$

.....  
(1)

**(Total for question 4 is 3 marks)**

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5 Simplify  $k + k + 8$

.....  
**(Total for question 5 is 1 mark)**

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6 (a) Simplify  $4 \times 3x$

.....  
(1)

(b) Simplify  $7a - 3a + 6a$

.....  
(1)

**(Total for question 6 is 2 marks)**

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7 Simplify  $8g + 6h - 3g + h$

.....  
**(Total for question 7 is 2 marks)**

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8 (a) Simplify  $3 \times b \times 9$

.....  
(1)

(b) Simplify  $2x - 3y - 6x - 4y$

.....  
(2)

**(Total for question 8 is 3 marks)**

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9 Simplify  $8c + 3d - c + 2d$

.....  
**(Total for question 9 is 2 marks)**

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10 (a) Simplify  $f+f+f+f+f$

(b) Simplify  $5a + 3b + 2a + 2b$

.....  
(1)

.....  
(2)

**(Total for question 10 is 3 marks)**

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

(b) Simplify  $2p \times 2p$

(c) Simplify  $\frac{7x + 5x}{4}$

.....  
(1)

.....  
(1)

.....  
(1)

**(Total for question 11 is 3 marks)**

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12 Simplify  $11c - 8d + 5c - d$

.....  
**(Total for question 12 is 2 marks)**

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13 (a) Simplify  $3a \times 4b$

.....  
(1)

(b) Simplify  $3x + 2y + 6x - y$

.....  
(2)

**(Total for question 13 is 3 marks)**

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14 (a) Simplify  $a \times b \times 3$

.....  
(1)

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

.....  
(1)

(c) Simplify  $\frac{10d}{d}$

.....  
(1)

**(Total for question 14 is 3 marks)**

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15 (a) Simplify  $a \times 2 \times 5$

.....  
(1)

(b) Simplify  $b \times b$

.....  
(1)

(c) Simplify  $\frac{2y + 6y}{2}$

.....  
(1)

**(Total for question 15 is 3 marks)**

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16 (a) Simplify  $2t \times 7s$

.....  
(1)

(b) Simplify  $7a + 4b - 3a - 5b$

.....  
(2)

**(Total for question 16 is 3 marks)**

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17 (a) Simplify  $6f - f$

.....  
(1)

(b) Simplify  $7x^2 - 3x + 3x^2 + 6x$

.....  
(2)

**(Total for question 17 is 3 marks)**

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18 Simplify  $2 \times n \times 6 \times m$

.....  
(Total for question 18 is 1 mark)

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19 (a) Simplify  $6j \times 5k$

.....  
(1)

(b) Simplify  $7a - 6b + 5a + 4b$

.....  
(2)

(Total for question 19 is 3 marks)

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20 (a) Simplify  $4n - 3n + 5n$

.....  
(1)

(b) Simplify  $p^2 + p^2 + p^2$

.....  
(1)

(c) Simplify  $5 + 2a + 7b - 6a + b$

.....  
(2)

(Total for question 20 is 4 marks)

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**21** (a) Simplify  $a^2 + a^2 + a^2$

.....  
(1)

(b) Simplify  $2rs - 5rs + 4rs$

.....  
(1)

(c) Simplify  $4a + 2 - 7a + a - 6$

.....  
(2)

**(Total for question 21 is 4 marks)**

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**22** (a) Simplify  $n + n + n - n$

.....  
(1)

(b) Simplify  $3xy + 2xy - xy$

.....  
(1)

(c) Simplify  $4a + 3b - a + 3b + 6$

.....  
(2)

**(Total for question 22 is 4 marks)**

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