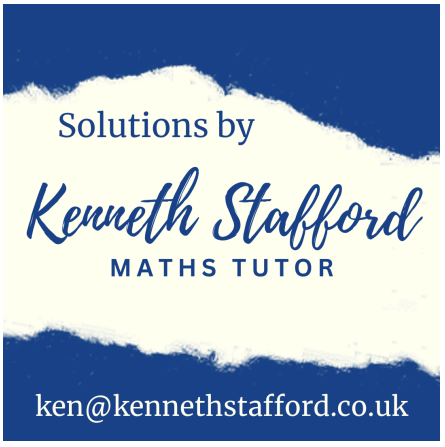
Name: SOLUTIONS

GCSE (1 - 9)

Simplifying an Expression





These questions are compiled from *released* Pearson Edexcel GCSE maths exam papers
They contain exam questions from up until the ***Summer 2023*** exam series
More recent exam papers do exist but are withheld for mock exams
As new exam papers are released these worksheets will gradually be updated
The ***most current*** version of these worksheets will always be available at: kennethstafford.co.uk

Question	Where the question appeared	Question	Where the question appeared
1	Edexcel, GCSE, Autumn 2017, Paper 2F, Q3	16	Edexcel, GCSE, Summer 2023, Paper 1F, Q13
2	Edexcel, GCSE, Autumn 2017, Paper 3F, Q2	17	Edexcel, GCSE, Summer 2023, Paper 2F, Q4
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4	Edexcel, GCSE, Autumn 2019, Paper 1F, Q13	19	Edexcel, GCSE, November 2022, Paper 1F, Q5
5	Edexcel, GCSE, Autumn 2019, Paper 1F, Q26	20	Edexcel, GCSE, November 2022, Paper 2F, Q14
6	Edexcel, GCSE, Autumn 2020, Paper 2F, Q3	21	Edexcel, GCSE, Summer 2022, Paper 2F, Q21
7	Edexcel, GCSE, Autumn 2020, Paper 3F, Q14		
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10	Edexcel, GCSE, Summer 2017, Paper 2F, Q1		
11	Edexcel, GCSE, Summer 2018, Paper 1F, Q6		
12	Edexcel, GCSE, Summer 2018, Paper 2F, Q20		
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14	Edexcel, GCSE, Summer 2019, Paper 2F, Q8		
15	Edexcel, GCSE, Summer 2019, Paper 3F, Q9		

Simplifying an Expression (Questions from Edexcel GCSE Past Papers)

1

(a) Simplify $3f \times 5g$

15fg

(1)

(b) Simplify $t \times t$

t^2

(1)

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

$\frac{8n}{2}$

4n

(1)

(Total for Question 3 is 3 marks)

[Edexcel, GCSE, Autumn 2017, Paper 2F, Q3]

2

Simplify $y + 3y - 2y$

2y

(Total for Question 2 is 1 mark)

[Edexcel, GCSE, Autumn 2017, Paper 3F, Q2]

3

(a) Simplify $3m - m - m + 3m$

6m -2m

4m

(1)

(b) Simplify $2 \times n \times p \times 4$

8np

(1)

(Total for Question 7 is 2 marks)

[Edexcel, GCSE, Autumn 2018, Paper 2F, Q7]

Simplifying an Expression (Questions from Edexcel GCSE Past Papers)

4

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

$10ab$

(1)

(b) Simplify $3x + 2y + 5x - y$

$8x + y$

(2)

(Total for Question 13 is 3 marks)

[Edexcel, GCSE, Autumn 2019, Paper 1F, Q13]

5

(a) Simplify $(p^2)^5$

$(p^2)^5 = p^2 \times p^2 \times p^2 \times p^2 \times p^2 = p^{10}$

(1)

(b) Simplify $12x^7y^3 \div 6x^3y$

$\frac{12x^7y^3}{6x^3y}$

$2x^4y^2$

(2)

(Total for Question 26 is 3 marks)

[Edexcel, GCSE, Autumn 2019, Paper 1F, Q26]

Simplifying an Expression (Questions from Edexcel GCSE Past Papers)

6

Simplify $3e - e + 4e$

$7e - e = 6e$

(Total for Question 3 is 1 mark)

[Edexcel, GCSE, Autumn 2020, Paper 2F, Q3]

7

(a) Simplify $3x + 5y + 2x - 4y$

$5x + y$

$5x + y$

(2)

(b) Solve $5p + 7 = 22$

$5p + 7 = 22$

$5p = 15$

$p = \frac{15}{5}$

$p = 3$

(2)

(Total for Question 14 is 4 marks)

[Edexcel, GCSE, Autumn 2020, Paper 3F, Q14]

Simplifying an Expression (Questions from Edexcel GCSE Past Papers)

8

(a) Simplify $n^3 \times n^5$

$n^{3+5} = n^8$

(1)

(b) Simplify $\frac{c^3d^4}{c^2d}$

$\frac{c^3d^4}{c^2d} \div$

cd^3

(2)

(c) Solve $\frac{5x}{2} > 7$

$\frac{5x}{2} > 7$

$5x > 14$

$\frac{14}{5} = \frac{28}{10}$

$x > \frac{14}{5}$

$x > 2.8$

(2)

(Total for Question 23 is 5 marks)

[Edexcel, GCSE, Summer 2017, Paper 1F, Q3]

Simplifying an Expression (Questions from Edexcel GCSE Past Papers)

9

(a) Simplify $7 \times e \times f \times 8$

56ef

.....

(1)

(b) Solve $\frac{x}{5} = 2\frac{1}{2}$

$\frac{x}{5} = 2.5$

$x = 12.5$

$x =$ 12.5

.....

(1)

(Total for Question 3 is 2 marks)

[Edexcel, GCSE, Summer 2017, Paper 1F, Q3]

10

(a) Simplify $5p - 3p + p$

6p - 3p = 3p

.....

(1)

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

$2m^3$

.....

(1)

(c) Simplify $10 + 3c + 5d - 7c + d$

10 −4c +6d

.....

(2)

(Total for Question 1 is 4 marks)

[Edexcel, GCSE, Summer 2017, Paper 2F, Q1]

Simplifying an Expression (Questions from Edexcel GCSE Past Papers)

11

(a) Simplify $3 \times 4t$

$12t$

(1)

(b) Simplify $8a - 3a + 2a$

$10a - 3a = 7a$

(1)

(Total for Question 6 is 2 marks)

[Edexcel, GCSE, Summer 2018, Paper 1F, Q6]

12

(a) Simplify $m^3 \times m^4$

$m^{3+4} = m^7$

(1)

(b) Simplify $(5np^3)^3$

$(5np^3)^3$

$125n^3p^9$

(2)

(c) Simplify $\frac{32q^9r^4}{4q^3r}$

$8q^6r^3$

(2)

(Total for Question 20 is 5 marks)

[Edexcel, GCSE, Summer 2018, Paper 2F, Q20]

13

Expand and simplify $5(p + 3) - 2(1 - 2p)$

$5(p+3) - 2(1-2p)$

$5p + 15 - 2 + 4p$

$9p + 13$

(Total for Question 20 is 2 marks)

[Edexcel, GCSE, Summer 2018, Paper 3F, Q20]

Simplifying an Expression (Questions from Edexcel GCSE Past Papers)

14

(a) Simplify $a \times b \times 7$

$7ab$

(1)

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

y^3

(1)

(c) Simplify fully $\dfrac{e \times e \times e \times f}{e \times e \times f \times f}$

$\dfrac{e^3 f^1}{e^2 f^2} = e^1 f^{-1}$

$\dfrac{e \times e \times e \times f}{e \times e \times f \times f} = \dfrac{e}{f}$

$ef^{-1} = \dfrac{e}{f}$

(2)

(Total for Question 8 is 4 marks)

[Edexcel, GCSE, Summer 2019, Paper 2F, Q8]

15

Simplify $4e + 6f + 7e - f$

$11e + 5f$

$11e + 5f$

(Total for Question 9 is 2 marks)

[Edexcel, GCSE, Summer 2019, Paper 3F, Q9]

16

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

5a

(1)

(b) Simplify $19 + 5b + 4c - 7b + c$

$-2b + 5c + 19$

(2)

(c) Factorise $8d - 6$

$2(4d - 3)$

(1)

(Total for Question 13 is 4 marks)

[Edexcel, GCSE, Summer 2023, Paper 1F, Q13]

17

Simplify $3 \times 4t$

12t

(Total for Question 4 is 1 mark)

[Edexcel, GCSE, Summer 2023, Paper 2F, Q4]

18

Simplify $m + m + m + m$

4m

(Total for Question 3 is 1 mark)

[Edexcel, GCSE, Summer 2023, Paper 3F, Q3]

19

Simplify $3 \times w \times 5 \times t$

15wt

(Total for Question 5 is 1 mark)

[Edexcel, GCSE, November 2022, Paper 1F, Q5]

20

(a) Simplify $4c + 7d + 3c - d$

7c + 6d

(2)

[Edexcel, GCSE, November 2022, Paper 2F, Q14]

21

(a) Simplify $(x^3)^5$

x^{15}

(1)

(b) Expand and simplify $4(x + 3) + 7(4 - 2x)$

4x + 12 + 28 - 14x

-10x + 40

(2)

(c) Factorise fully $15x^3 + 3x^2y$

$3x^2(5x + y)$

(2)

(Total for Question 21 is 5 marks)

[Edexcel, GCSE, Summer 2022, Paper 2F, Q21]