

Name: _____

GCSE (1 – 9)

Expanding and Factorising

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 (a) Expand $7(2x + 7)$

.....
(1)

(b) Factorise $3y + 12$

.....
(1)

(Total for Question 1 is 2 marks)

2 (a) Expand $5a(a - 6)$

(b) Solve $4(b + 2) = 24$

.....
(2)

$b =$
(2)

(Total for Question 2 is 4 marks)

3 (a) Factorise fully $12m + 8m^2$

(b) Solve $3(n - 5) = 27$

.....
(2)

$n =$
(2)

(Total for Question 3 is 4 marks)

4 (a) Expand $8(3s - 2)$

.....
(1)

(b) Factorise $4t + 20$

.....
(1)

(Total for Question 4 is 2 marks)

5 (a) Factorise fully $5a^2b + 15ab^2$

(b) Solve $6(c - 8) = 42$

.....
(2)

$c =$
(2)

(Total for Question 5 is 4 marks)

6 (a) Factorise $18x + 24$

(b) Expand $3(2y - 4)$

.....
(1)

.....
(1)

(Total for Question 6 is 2 marks)

7 (a) Expand $p(p - 3)$

.....
(1)

(b) Factorise $16q + 8$

.....
(1)

(Total for Question 7 is 2 marks)

8 (a) Factorise fully $6x^2 - 4xy$

(b) Solve $2(w - 4) = 13$

.....
(2)

$w =$
(2)

(Total for Question 8 is 4 marks)

9 (a) Factorise $x^2 - 9x$

(b) Expand $6(5y + 1)$

.....
(1)

.....
(1)

(Total for Question 9 is 2 marks)

10 (a) Expand $3(5x - 8)$

.....
(1)

(b) Factorise $18y + 15$

.....
(1)

(Total for Question 10 is 2 marks)

11 (a) Expand $7(2h - 3)$

(b) Expand and Simplify $4(g + 5) + 3(g - 2)$

.....
(1)

.....
(2)

(Total for Question 11 is 3 marks)

12 (a) Factorise fully $7xy + 21x$

(b) Solve $6(p + 3) = 42$

.....
(2)

$p =$
(2)

(Total for Question 12 is 4 marks)

13 (a) Expand $a(a + b)$

.....
(1)

(b) Factorise $15y - 6$

.....
(1)

(Total for Question 13 is 2 marks)

14 (a) Expand $9x(3y - 8)$

(b) Expand and Simplify $7(t - 4) + 5(t - 2)$ (2)

.....
(2)

(Total for Question 14 is 4 marks)

15 (a) Factorise fully $30x^3 + 12x$

(b) Solve $5(f - 2) = 22$ (2)

$f =$
(2)

(Total for Question 15 is 4 marks)

16 (a) Expand $x(8x + 1)$

.....
(1)

(b) Factorise $18 + 63y$

.....
(1)

(Total for Question 16 is 2 marks)

17 (a) Expand $2x^2(4x - 9)$

(b) Expand and Simplify $6(y + 3) - 5(y - 4)$

.....
(2)

.....
(2)

(Total for Question 17 is 4 marks)

18 (a) Factorise fully $30a^2 + 40ab$

(b) Solve $3(g + 9) = 21$

.....
(2)

$g =$
(2)

(Total for Question 18 is 4 marks)

19 (a) Expand $n(5n + 1)$

.....
(1)

(b) Factorise $18m + mn$

.....
(1)

(Total for Question 19 is 2 marks)

20 (a) Expand $3x(7x^2 - y)$

(b) Expand and Simplify $3(6y + 5) - 2(4y - 1)$

.....
(2)

.....
(2)

(Total for Question 20 is 4 marks)

21 (a) Factorise fully $18a^2bc + 30abc^2$

(b) Expand and Simplify $4(2y - 7) - 3(5y - 3)$

.....
(2)

.....
(2)

(Total for Question 21 is 4 marks)
