



KS3.M-A8 Expanding Single Brackets

AQA KS3.M-A8 · Calculators not allowed · about 50 minutes

Name: _____ Date: ____ / ____ / ____

Answer ALL questions. Show all your working.

- 1** Expand the single bracket $3(x + 4)$.

Expand $3(x + 4)$.

(1)

- 2** Expand the single bracket $-2(x - 5)$, taking care with the negative sign.

Expand $-2(x - 5)$.

(1)

- 3** Expand the single bracket $5(2x + 3)$.

Expand $5(2x + 3)$.

(1)

- 4** Expand and simplify the expression $2(x + 3) + x$.

Work out $2(x + 3) + x$.

(2)

- 5** Expand and simplify the expression $-3(2x - 1) + 4x$.

Work out $-3(2x - 1) + 4x$.

(2)

6 Expand and simplify the expression $3(a + 2) + 2(a - 5)$.

Work out $3(a + 2) + 2(a - 5)$.

(2)

7 Expand and simplify the expression $3(x + 4) - 2(x - 1)$.

Work out $3(x + 4) - 2(x - 1)$.

(2)

8 Expand and simplify the expression $2(3x + 4) - 5x$.

Work out $2(3x + 4) - 5x$.

(2)

9 Expand all brackets then simplify the expression $(x + 2) + 3(x - 1) + 2(2x + 3)$.

Work out $(x + 2) + 3(x - 1) + 2(2x + 3)$.

(3)

10 Expand the brackets and solve the linear equation $2(x + 3) + 5 = 3x + 1$.

Solve $2(x + 3) + 5 = 3x + 1$.

(2)

11 Expand the brackets and solve the linear equation $-3(x - 2) + 4 = 2x$.

Solve $-3(x - 2) + 4 = 2x$.

(2)

12 Expand and simplify, taking care with negative signs: $-2(x + 3) - 3(x - 1)$.

Work out $-2(x + 3) - 3(x - 1)$.

(2)

13 Expand and simplify the expression $4(x + 5) - 2(x + 3) + 3$, then give your final simplified form.

Work out $4(x + 5) - 2(x + 3) + 3$.

(3)

Mark scheme · KS3.M-A8 Expanding Single Brackets

Question 1

- **B1** $3x + 12$ cao
- Answer: **$3x + 12$**

Question 2

- **B1** $-2x + 10$ cao
- Answer: **$-2x + 10$**

Question 3

- **B1** $10x + 15$ cao
- Answer: **$10x + 15$**

Question 4

- **M1** expand $2(x+3)$ to $2x + 6$ or equivalent method
- **A1** $3x + 6$ cao
- Answer: **$3x + 6$**

Question 5

- **M1** expand $-3(2x-1)$ to $-6x + 3$ or equivalent method
- **A1** $-2x + 3$ cao
- Answer: **$-2x + 3$**

Question 6

- **M1** expand both brackets: $3a + 6$ and $2a - 10$ shown
- **A1** $5a - 4$ cao
- Answer: **$5a - 4$**

Question 7

- **M1** expand both brackets: $3x + 12$ and $-2x + 2$ or equivalent method
- **A1** $x + 14$ cao
- Answer: **$x + 14$**

Question 8

- **M1** expand $2(3x+4)$ to $6x + 8$ or equivalent method
- **A1** $x + 8$ cao
- Answer: **$x + 8$**

Question 9

- **M1** expand two of the brackets correctly eg $x+2$ and $3x-3$ or equivalent
- **M1** expand the remaining bracket $4x+6$ or equivalent
- **A1** $8x + 5$ cao
- Answer: **$8x + 5$**

Question 10

- **M1** expand and collect like terms: $2x + 6 + 5 = 3x + 1$ or $2x + 11 = 3x + 1$
- **A1** $x = 10$ cao
- Answer: **10**

Question 11

- **M1** expand to $-3x + 6 + 4 = 2x$ or $-3x + 10 = 2x$ and collect terms
- **A1** $x = 2$ cao
- Answer: **2**

Question 12

- **M1** expand both brackets: $-2x - 6$ and $-3x + 3$ or equivalent
- **A1** $-5x - 3$ cao
- **Answer: $-5x - 3$**

Question 13

- **M1** expand $4(x+5)$ to $4x+20$ and $-2(x+3)$ to $-2x -6$
- **M1** collect like terms to form $2x + 17$ or equivalent steps
- **A1** $2x + 17$ cao
- **Answer: $2x + 17$**