

Outcome 2 - Multiplying out Double Brackets

Bronze examples...

Examples...

Multiply everything in second bracket by $x!$

$$\begin{aligned} (x + 2)(x + 7) \\ = x^2 + 7x + 2x + 14 \\ = x^2 + 9x + 14 \end{aligned}$$

Multiply everything in second bracket by $2!$

$$\begin{aligned} (x + 9)(x + 5) \\ = x^2 + 5x + 9x + 45 \\ = x^2 + 14x + 45 \end{aligned}$$



Silver examples

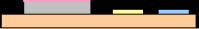
Examples...

Multiply everything in second bracket by $x!$

$$\begin{aligned} (x - 4)(x + 7) \\ = x^2 + 7x - 4x - 28 \\ = x^2 + 3x - 28 \end{aligned}$$

Multiply everything in second bracket by $-4!$

$$\begin{aligned} (x + 3)(x - 9) \\ = x^2 - 9x + 3x - 27 \\ = x^2 - 6x - 27 \end{aligned}$$



Gold examples

Examples...

Multiply everything in second bracket by $x!$

$$\begin{aligned} (x - 2)(x - 8) \\ = x^2 - 8x - 2x + 16 \\ = x^2 - 10x + 16 \end{aligned}$$

Multiply everything in second bracket by $-2!$

$$\begin{aligned} (4x - 3)(x - 7) \\ = 4x^2 - 28x - 3x + 21 \\ = 4x^2 - 31x + 21 \end{aligned}$$



Bronze Questions

Expand the following double brackets...



1 $(x + 1)(x + 3)$ **2** $(x + 4)(x + 5)$

3 $(x + 6)(x + 1)$ **4** $(x + 7)(x + 3)$

5 $(x + 8)(x + 8)$ **6** $(x + 3)(x + 2)$

7 $(x + 4)(x + 10)$ **8** $(x + 6)(x + 9)$

9 $(x + 8)(x + 4)$ **10** $(x + 7)(x + 9)$

Silver Questions

Expand the following double brackets...



1 $(x - 1)(x + 8)$ **2** $(x - 3)(x + 8)$

3 $(x + 9)(x - 1)$ **4** $(x + 6)(x - 4)$

5 $(x - 7)(x + 7)$ **6** $(x + 5)(x - 6)$

7 $(x + 9)(x - 12)$ **8** $(x - 8)(x + 5)$

9 $(x - 9)(x + 6)$ **10** $(x + 3)(x - 7)$

Gold Questions

Expand the following double brackets...



1 $(x - 1)(x - 4)$ **2** $(x - 3)(x - 7)$

3 $(x - 6)(x - 1)$ **4** $(x - 9)(x - 3)$

5 $(2x - 4)(x - 5)$ **6** $(3x - 2)(x - 9)$

7 $(x - 8)(7x - 10)$ **8** $(x - 5)(4x - 3)$

9 $(3x - 2)(2x - 6)$ **10** $(5x - 6)(8x - 9)$

Bronze Answers

- | | |
|---------------------|----------------------|
| 1. $x^2 + 4x + 3$ | 2. $x^2 + 9x + 20$ |
| 3. $x^2 + 7x + 6$ | 4. $x^2 + 10x + 21$ |
| 5. $x^2 + 16x + 64$ | 6. $x^2 + 5x + 6$ |
| 7. $x^2 + 14x + 40$ | 8. $x^2 + 15x + 54$ |
| 9. $x^2 + 12x + 32$ | 10. $x^2 + 16x + 63$ |

Silver Answers

- | | |
|---------------------|---------------------|
| 1. $x^2 + 7x - 8$ | 2. $x^2 + 5x - 24$ |
| 3. $x^2 + 8x - 9$ | 4. $x^2 + 2x - 24$ |
| 5. $x^2 - 49$ | 6. $x^2 - x - 30$ |
| 7. $x^2 - 3x - 108$ | 8. $x^2 - 3x - 40$ |
| 9. $x^2 - 3x - 54$ | 10. $x^2 - 4x - 21$ |

Gold Answers

- | | |
|----------------------|------------------------|
| 1. $x^2 - 5x + 4$ | 2. $x^2 - 10x + 21$ |
| 3. $x^2 - 7x + 6$ | 4. $x^2 - 12x + 27$ |
| 5. $2x^2 - 14x + 20$ | 6. $3x^2 - 29x + 18$ |
| 7. $7x^2 - 66x + 80$ | 8. $4x^2 - 23x + 15$ |
| 9. $6x^2 - 22x + 12$ | 10. $40x^2 - 93x + 54$ |