

Outcome 1 - Multiplying out Single Brackets

Bronze examples...

Examples...

Multiply everything in bracket by 6!

$$6(2x + 5) = 6x + 15$$

$$4(3x - 2) = 12x - 8$$

$$7(4x + 9) = 28x + 63$$

$$8(8x + 3) = 64x + 24$$

Silver examples

Examples...

Multiply out the following and simplify...

$$5(6x + 7) + 2(3x + 4)$$

$$= 30x + 35 + 6x + 8$$

$$= 36x + 43$$

$$7(3x + 2) - 3(x + 8)$$

$$= 21x + 14 - 3x - 24$$

$$= 18x - 10$$

Gold examples

Examples...

Multiply out the following...

$$x(5x + 6) = 5x^2 + 6x$$











$$2x(7x - 3) = 14x^2 - 6x$$

$$x^2(8x + 9) = 8x^3 + 72x^2$$

$$7x^2(6x + 1) = 42x^3 + 7x^2$$











Bronze Questions

Expand the following single brackets...

- | | |
|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
|  $3(x + 4)$ |  $2(5x - 3)$ |
|  $5(2x + 5)$ |  $7(3x + 7)$ |
|  $4(7x - 4)$ |  $8(6x - 7)$ |
|  $6(9x + 10)$ |  $10(3x - 11)$ |
|  $9(x + 12)$ |  $12(11x - 3)$ |











Silver Questions

Expand the following single brackets...

- | |
|---------------------------------------------------------------------------------------------------------------|
|  $2(x + 7) + 3(4x + 9)$ |
|  $4(3x + 7) + 2(5x + 8)$ |
|  $5(4x + 1) + 4(x + 6)$ |
|  $9(x + 11) + 7(5x + 2)$ |
|  $3(7x + 3) + 10(6x + 13)$ |
|  $8(8x + 1) - 7(4x + 3)$ |
|  $5(9x + 2) - 2(4x + 9)$ |
|  $7(6x + 7) - 3(2x + 11)$ |
|  $4(6x + 1) - 5(5x + 12)$ |
|  $3(7x + 8) - 11(2x + 9)$ |

Gold Questions

Expand the following single brackets...

- | | |
|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
|  $x(x + 7)$ |  $x(3x - 1)$ |
|  $x(2x + 9)$ |  $6x(2x + 5)$ |
|  $2x(9x - 2)$ |  $8x(5x - 3)$ |
|  $x^2(2x + 9)$ |  $x^2(10x - 3)$ |
|  $3x^2(7x + 4)$ |  $5x^2(7x - 9)$ |

Bronze Answers

- | | | | |
|----|------------|-----|-------------|
| 1. | $3x + 12$ | 2. | $10x - 6$ |
| 3. | $10x + 25$ | 4. | $21x + 49$ |
| 5. | $28x - 16$ | 6. | $48x - 56$ |
| 7. | $54x + 60$ | 8. | $30x - 110$ |
| 9. | $9x + 108$ | 10. | $132x - 36$ |

Silver Answers

- | | | | |
|----|-------------|-----|-------------|
| 1. | $14x + 41$ | 2. | $22x + 44$ |
| 3. | $24x + 29$ | 4. | $44x + 113$ |
| 5. | $81x + 139$ | 6. | $36x - 13$ |
| 7. | $37x - 8$ | 8. | $36x + 16$ |
| 9. | $-x - 56$ | 10. | $-x - 75$ |

Gold Answers

- | | | | |
|----|-----------------|-----|-----------------|
| 1. | $x^2 + 7x$ | 2. | $3x^2 - x$ |
| 3. | $2x^2 + 9x$ | 4. | $12x^2 + 30x$ |
| 5. | $18x^2 - 4x$ | 6. | $40x^2 - 24x$ |
| 7. | $2x^3 + 9x^2$ | 8. | $10x^3 - 3x^2$ |
| 9. | $21x^3 + 12x^2$ | 10. | $35x^3 - 45x^2$ |