

Outcome 1 - The Order of Operations

Bronze examples

Examples... **BODMAS**

$3 + 5 \times 2 = 3 + 10 = 13$
(Multiplication before addition!)

$4 \times 8 - 7 = 32 - 7 = 25$
(Multiplication before subtraction!)

$9 + 16 \div 2 = 9 + 8 = 17$
(Division before addition!)

Silver examples

Examples... **BODMAS**

$(3 + 4) \times 8 = 7 \times 8 = 56$
(Brackets before multiplication!)

$9 \times (5 - 3) = 9 \times 2 = 18$
(Brackets before multiplication!)

$(7 + 13) \div 2 = 20 \div 2 = 10$
(Brackets before division!)

Gold examples







Examples... **BODMAS**

$14 + \sqrt{4} = 14 + 2 = 16$
(Orders before addition!)

$70 - (5 + 3)^2$ (Brackets first!)
 $= 70 - 8^2$ (Orders next!)
 $= 70 - 64$ (Finish with subtraction!)
 $= 6$


Bronze Questions

Carry out the following calculations ...

- | | |
|---|---|
|  1 $6 + 4 \times 3$ |  2 $16 - 3 \times 5$ |
|  3 $8 \times 3 - 17$ |  4 $9 \times 4 + 12$ |
|  5 $12 \div 4 + 11$ |  6 $14 \div 2 - 5$ |
|  7 $5 + 21 \div 3$ |  8 $19 - 40 \div 5$ |
|  9 $72 - 8 \times 7$ |  10 $60 \div 5 - 12$ |











Silver Questions

Carry out the following calculations ...

- | | |
|---|--|
|  1 $(5 + 6) \times 8$ |  2 $(12 - 8) \times 6$ |
|  3 $3 \times (11 - 7)$ |  4 $9 \times (4 + 3)$ |
|  5 $16 \div (3 + 5)$ |  6 $18 \div (8 - 2)$ |
|  7 $(19 + 5) \div 3$ |  8 $(25 - 7) \div 9$ |
|  9 $(12 - 8) \times 4$ |  10 $48 \div (9 - 3)$ |

Gold Questions

Carry out the following calculations ...

- | | |
|--|---|
|  1 $17 + \sqrt{81}$ |  2 $4^2 + 2^2$ |
|  3 $\sqrt{25} \times 6$ |  4 $100 \div 5^2$ |
|  5 $(12 - 8)^2$ |  6 $\sqrt{(43 - 7)}$ |
|  7 $\sqrt{(70 - 6)} \div 8$ |  8 $(37 - 5) \div 2^2$ |
|  9 $23 + (4 + 5)^2$ |  10 $87 - (6 + 2)^2$ |

Bronze Answers

- | | | | |
|----|----|-----|----|
| 1. | 18 | 2. | 1 |
| 3. | 7 | 4. | 48 |
| 5. | 14 | 6. | 2 |
| 7. | 12 | 8. | 11 |
| 9. | 16 | 10. | 0 |

Silver Answers

- | | | | |
|----|----|-----|----|
| 1. | 88 | 2. | 24 |
| 3. | 12 | 4. | 63 |
| 5. | 2 | 6. | 3 |
| 7. | 8 | 8. | 2 |
| 9. | 16 | 10. | 8 |

Gold Answers

- | | | | |
|----|-----|-----|----|
| 1. | 26 | 2. | 20 |
| 3. | 30 | 4. | 4 |
| 5. | 16 | 6. | 6 |
| 7. | 8 | 8. | 8 |
| 9. | 104 | 10. | 23 |