

# Order of Operations



# Bodmas

<b>B</b>	<b>Brackets</b>	$10 \times (4 + 2) = 10 \times 6 = 60$
<b>O</b>	<b>Order</b>	$5 + 2^2 = 5 + 4 = 9$
<b>D</b>	<b>Division</b>	$10 + 6 \div 2 = 10 + 3 = 13$
<b>M</b>	<b>Multiplication</b>	$10 - 4 \times 2 = 10 - 8 = 2$
<b>A</b>	<b>Addition</b>	$10 \times 4 + 7 = 40 + 7 = 47$
<b>S</b>	<b>Subtraction</b>	$10 \div 2 - 3 = 5 - 3 = 2$

# Bidmas

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<b>I</b>	<b>Indices</b>	$5 + 2^2 = 5 + 4 = 9$
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<b>A</b>	<b>Addition</b>	$10 \times 4 + 7 = 40 + 7 = 47$
<b>S</b>	<b>Subtraction</b>	$10 \div 2 - 3 = 5 - 3 = 2$

# Brackets

Calculate anything in brackets first.

$$10 \times (4+2) = 10 \times 6 = 60 \quad \text{not} \quad 10 \times (4 + 2) = 40 + 2 = 42$$

Compare these calculations:

$$10 \div (2 + 3) = \quad 10 \div 5 = 2$$

$$10 \div 2 + 3 = \quad 5 + 3 = 8$$

$$(6 + 2) \times 8 = \quad 8 \times 8 = 64$$

$$6 + 2 \times 8 = \quad 6 + 16 = 22$$

# Order / Indices

This relates to powers or roots of numbers (squared, cubed etc.). Calculate powers or roots before multiplication/division/addition/subtraction.

$$5 + 2^2 = 5 + 4 = 9 \quad \text{not} \quad 5 + 2^2 = 7^2 = 49$$

Compare these calculations:

$$10 - 2^3 = \quad 10 - 8 = 2$$

$$(10 - 2)^3 = \quad 8^3 = 512$$

$$12 + \sqrt{4} = \quad 12 + 2 = 14$$

$$\sqrt{(12 + 4)} = \quad \sqrt{16} = 4$$

# Division and Multiplication

Division and multiplication come before addition and subtraction.

$$10 + 6 \div 2 = 10 + 3 = 13 \quad \text{not} \quad 10 + 6 \div 2 = 16 \div 2 = 8$$

$$10 - 4 \times 2 = 10 - 8 = 2 \quad \text{not} \quad 10 - 4 \times 2 = 6 \times 2 = 12$$

Compare these calculations:

$12 - 2 \times 5 =$

$12 - 10 = 2$

$12 - 2 \times 5 =$

$10 \times 5 = 50$

$8 + 10 \div 2$

$8 + 5 = 13$

$8 + 10 \div 2 =$

$18 \div 2 = 9$

# Calculate

Use the following numbers to make the answers below remembering the order of operations:

2

3

5

11

$$5 + 3 \times 2$$

4

$$(5 + 3) \div 2 \text{ or } (5 - 3) \times 2$$

21

$$(5 + 2) \times 3$$

6

$$5 - 2 + 3$$

Can you make your own?



# Calculate

Use the 3 circled numbers to create a calculation with the answers below:

2

6

7

28

$$(6 - 2) \times 7$$

40

$$6 \times 7 - 2$$

1.5

$$(2 + 7) \div 6$$

26

$$(6 + 7) \times 2$$

10

$$6 \div 2 + 7$$

Can you make your own?

3

4

9

7

$$9 \div 3 + 4$$

33

$$4 \times 9 - 3$$

39

$$(9 + 4) \times 3$$

or  $4 \times 9 + 3$

24

$$(9 - 3) \times 4$$

63

$$(3 + 4) \times 9$$

Can you make your own?



# Calculate

Use the 3 circled numbers to create a calculation with the answers below:

2

5

8

24

$$(5 - 2) \times 8$$

20

$$(8 \times 5) \div 2$$

26

$$(8 + 5) \times 2$$

50

$$(8 + 2) \times 5$$

2

$$(8 + 2) \div 5$$

Can you make your own?

3

7

12

120

$$(7 + 3) \times 12$$

43

$$3 \times 12 + 7$$

11

$$12 \div 3 + 7$$

3

$$12 \div (7 - 3)$$

57

$$(12 + 7) \times 3$$

Can you make your own?

# Calculate

Use the 3 circled numbers to create a calculation with the answers below:

2

9

10

2

$$2 \div (10 - 9)$$

38

$$(10 + 9) \times 2$$

28

$$9 \times 2 + 10$$

88

$$10 \times 9 - 2$$

110

$$(9 + 2) \times 10$$

Can you make your own?



