ORDER OF OPERATIONS

When calculating expressions, we follow the order of operations.

Order of Operations

1. Simplify the brackets.
2. Then simplify powers.
3. Multiply and Divide.
4. Then Add and Subtract.

B – Brackets
E – Exponents (powers)
D – Division
M – Multiplication
A – Addition
S – Subtraction

Example 1

Simplify
$-3(2-4)-(-2+4)$

Example 2

Simplify
$(-2)(4)+(-3)^2$

Examples

a) Is $3 + 6 \times 2 - 8$ equal to 7 or 10? Use BEDMAS to help you find the answer.

b) How do you evaluate $\frac{11+7}{9-3}$?

SIMPLIFY – USE THE ORDER OF OPERATIONS

a) $5-(3-4)$

b) $(-3-2)^2-(2+4)^2$

c) $(4 – 3) + 2(3 – 4)$

d) $2(-3)^2 – 4(-2)$

e) $5 + 12 \times 8 + 30 \div 6 + 8 – 5$

f) $-(3 – 5) \times (2 – 4)$

g) $(4 – 2)^2 \times 6 \div 8$

h) $\sqrt{3(18 – 6)}$

i) $4 + [6 – (9 – 4)]$

j) $3(-2 + 4)^3 – 2(-4 + 1)^2$