Mathematics Rules

Order of Operations: **BOMDAS**

1. **B**rackets
2. **O**rders (Power of & Square Roots)
3. **M**ultiplication
4. **D**ivision
5. **A**ddition
6. **S**ubtraction

Example

$7 + (6 \times 5^2 + 3)$??

$7 + (6 \times 25 + 3)$	Start inside Brackets, and then use "Orders" First
$7 + (150 + 3)$	Then Multiply
$7 + (153)$	Then Add
$7 + 153$	Brackets completed, last operation is add
160	

Rules for **Adding/Subtracting**

Signs **SAME**

- Add numbers
- Keep sign

Signs **DIFFER**

- Subtract smaller from bigger
- Use sign of bigger

Rules for **Multiplying/Dividing**

Signs **SAME**

- Multiply/Divide
- Use **+**

Signs **DIFFER**

- Multiply/Divide
- Use **-**

Exercises

1   What is the value of 3 + 6 ÷ 3 × 2 ?

    A 7   B 6   C 4   D 1.5

2   What is the value of 20 - (3 × 2³ - 5)?

    A -191 B 1   C 11   D 131

3   What is the value of 5 × 3 - 12 ÷ 4 + 8

    A 3   B 4   C 14   D 20

4   What is the value of 5 × 4 - 2 × 3 + 16 ÷ 4

    A 10   B 11½ C 18   D 34

5   What is the value of $(3 + 2)^2$ - 5 × 3 + 2^3 ?

    A 2   B 6   C 18   D 38