**Order of Operations**

Do things in Parentheses First

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |   | 6 × (5 + 3) | = | 6 × 8 | = | **48** |   |
|  |   | 6 × (5 + 3)  | = | 30 + 3 | = | 33 | (wrong) |

[Exponents](https://www.mathsisfun.com/exponent.html) (Powers, Roots) before Multiply, Divide, Add or Subtract

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |   | 5 × 22 | = | 5 × 4 | = | **20** |   |
|  |   | 5 × 22 | = | 102 | = | 100 | (wrong) |

Multiply or Divide before you Add or Subtract

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |   | 2 + 5 × 3 | = | 2 + 15 | = | **17** |   |
|  |   | 2 + 5 × 3  | = | 7 × 3 | = | 21 | (wrong) |

Otherwise just go left to right

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  |   | 30 ÷ 5 × 3  | = | 6 × 3 | = | **18** |   |
|  |   | 30 ÷ 5 × 3  | = | 30 ÷ 15 | = | 2 | (wrong) |

**How Do I Remember It All ... ? PEMDAS !**

|  |  |
| --- | --- |
| **P** | **P**arentheses first |
| **E** | **E**xponents (ie Powers and Square Roots, etc.) |
| **MD** | **M**ultiplication and **D**ivision (left-to-right) |
| **AS** | **A**ddition and **S**ubtraction (left-to-right) |