**Mathematical Operation**

Next, let us move to understand what **Operands** are?  
Operands can be defined as a NUMBER or VALUE upon which the FUNCTION will be applied.

**Example**  
If 2 and 5 are two given numbers or values, and ADD is the function given. Then the given statement can be written as,  
2 + 5 or 5+ 2.  
The operator (+) ADD serves as a function or action upon the numbers 2 and 5.  
Every number on which an action or function is performed is termed as OPERANDS.  
In the above example 2 + 5,  
+ stands as OPERATOR  
2 and 5 stand as OPERANDs

Either by summing 2 with 5, or 5 with 2 results an outcome. This outcome is the answer for the operator acting upon the operands.  
In this case, it is  
2 + 5 is 7. The word ‘is’ can be replaced with a Mathematical Operator called EQUALS-TO represented as =.  
2 + 5 = 7 or  
5 + 2 = 7

**What is the Importance of BODMAS in Math?**

The below illustration emphasizes why BODMAS plays an important role and why it can not be ignored in Mathematical-operations.  
4 + 3 x 2 = ?

Traditionally,  
First operation will be 4 + 3 = 7  
So 4 + 3 x 2 becomes 7 x 2, which is equal to 14.

Now let us apply the BODMAS rule and work out the same example 4 + 3 x 2.  
BODMAS represents,

* **Brackets**

 In this example, there is no bracket used hence, Bracket is ignored

* **Order of Power or Square**

No Power or Square is used in the given example, thus this step is also ignored

* **Division**

No Division used, hence moving to next priority Multiplication

* **Multiplication**

The given example has a Multiplication operation

That is 3 x 2 in the given example

4 + 3 x 2

3 x 2 = 6

The given problem 4 + 3 x 2 becomes 4 + 6

* **Addition**

The given example has a Addition operation

The given example 4 + 3 x 2 is simplified to 4 + 6, which carries a ADDITION function

So, 4 + 6 = 10

* **Subtraction**

There are no further operations to be performed, hence ignoring the Subtraction operation.

The answer for 4 + 3 x 2 as per BODMAS rule is 10,

Whereas 4 + 3 x 2 by a traditional left to right movement calculation is 14.

Both the methods yield 2 different results.  
In order to avoid such confusions, a rule is in place which needs to be followed.  
In this case, it is BODMAS

The above illustration should have given satisfactory evidence about how important BODMAS is and why it should not be ignored while performing Mathematical-operations.

**Worked out Examples**

* **4 x (3 + 2) = ?**

          = 4 x 5  
          =20

* **32 + 5 = ?**

          =9 + 5  
          =14

* **6 ÷ 2 + 7 x 4 = ?**

          =3 + 7 x 4  
          =3 + 28  
          =31

* **4 + 6 - 7 + 3 = ?**

          =10 - 4  
          =6

* **4 + 64 x ( 30 ÷ 5 ) = ?**

          =4 + 64 x 6  
          =4 + 384  
          =388

## ****Summary****

We have understood that an **operation** is a function which takes zero or more input values (called *operands*) to a well-defined output value. The number of operands is the arity of the operation.

The most commonly studied operations are binary operations (i.e., operations of arity 2), such as addition and multiplication, and unary operations

The article has shared information on how to approach a given set of problems using the BODMAS rule in mathematical-operations.

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