Must Know BODMAS Concepts & Rules

Quantitative Aptitude is one of the important parts of all competitive exams especially if you are appearing for SSC, Banking or Railways exams. Mostly students find quants sections very stressful. However, the questions involved in the Quantitative Aptitude section are not very tough to handle. All you need is the knowledge of certain tricks that will help you squeeze out of all the tricky problems you come across in the quants section. Mensuration questions are the most preferred questions of all the quant topics and BODMAS rules are majorly used to solve them. Therefore, let us look at some BODMAS Rules to make our calculations in mensuration easier than ever.

What is BODMAS?

- BODMAS is a tool which helps you solve arithmetic expressions containing two or more than two operations.
- BODMAS basically stands for Bracket, Of, Division, Multiplication, Addition & Subtraction.
- Sometime also called as **PEDMAS** - Parentheses, Exponents, Division, Multiplication, and Addition & Subtraction.

Use of BODMAS in Calculations

Let's now know how to use BODMAS rules while solving arithmetic expressions step wise.

1. All the expressions mentioned within the brackets must be solved first, there are of basically of 3 types and are mentioned below according to the preference order they are used in -

- Small Brackets
- Curly Brackets
- Square Brackets

For Example: 2[2+2{39-2(17+2)}]

= 2[2+2{39-2(19)}]

= 2[2+2{39-38}]

= 2[2+2{1}]

= 2[2+2]

= 2[2]

= 4

2. First step is followed by **of** and **order - 'Of' means part of** and is replaced by Multiplication sign (x). **'Order'** is the same as exponent which includes both roots as well as indices.

For Example: 10 -2 of (9 -4)

= 10 -2 of (5)

= 10 -10

= 1

3. After dealing with of and order, **division** and **multiplication** is performed.

For Example: 9 -3×2 + 2(9 -3)

= 9 -3×2 + 2(6)

= 3×2 + 12

= 6+12

= 18

4. The portion of expression containing addition and subtraction is solved in last.

For Example: 16-93(3 -1) + 5

= 16 -3(3)+5

= 16-9+5

= 7+5

= 12.

Solved Questions Using BODMAS Rules

Let's discuss some examples to understand the concept of BODMAS

Q1 Simplify (20[20] ^2+ 60×10) − 5000
Sol

Here bracket is removed first. Since bracket contains another expressions, BODMAS
will be used inside the bracket too.

20 (400 + 600) − 5000

= 20(1000) -5000

= 20000- 5000

= 15000

Q2 3{35+(45+ 102×3 -50) + 5}
Sol

3{35+(45 +5×3 -50) + 5}

= 3{35+(45 +5×3 -50) + 5}

= 3{35+(45 +15 -50) + 5}

= 3{35+(60 -50) + 5}

= 3{35+10 + 5}

= 3× 50

= 150

Q3 625÷25 +? (2) = 55

Sol

Using the concept of BODMAS and Transformation, we get

= 25 + 2= 55

= 2 = 55-25 = 30

= 30÷2 = 15

Solve BODMAS Questions on Your Own

Now as you have understood the concept of BODMAS, try to answer following questions.

1. 23 × 2 (45 − 15) + 168 ÷4 ÷2 - (11)2 =**?**
2. 2500 ÷25 +? × 10 = 200
3. 75 % of 480 + 20% of 540 - 100 =?
4. 25(-4) + 500 ÷ (70+5×6) =?
5. (4^2 +14)÷6 + (25) =?

Now that you have read about BODMAS Concepts, read some more articles in order to increase your Quantitative aptitude.

Quick Method to Solve Mensuration Problems
Shortcut to Solve Compound Interest Problems

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