Mathematics
Week 1 Term 4

STAGE 3

BODMAS

Set up of Week 1 Maths

- Hi Stage 3,
- We have tried to set your Maths work up a little differently. You will notice that each slide has a star.
- Just like at school, sometimes we need to complete work differently to other students to make sure we are working on a skill that will help you continue to learn and grow.
- ➢ Your teacher will be in contact with you if you are to work on the 1 star or 3 star activities.
- ➢ If you feel the 2 star activities are too hard, please attempt the 1 star activity. If you feel the 2 star activity is too easy please attempt the 3 star activity.

WEDNESDAY

- Daily NAPLAN Question
- Division time challenge.
- BODMAS explanation powerpoint.
  - 1 star activity.
  - 2 star activity.
  - 3 star activity.

NAPLAN Question

Bill, Sue and Mark share a bag of apples.

Bill and Sue each get $\frac{1}{6}$ of the apples in the bag.

What fraction of the bag of apples is left for Mark?

$\frac{4}{6}$ ○ $\frac{3}{6}$ ○ $\frac{2}{6}$ ○ $\frac{1}{6}$ ○

Division Time Challenge

Number of Questions: **50**
Testing: **2×**, **3×**, **4×**, **5×**, **6×**, **7×**, **8×**, **9×**, **10×**, **11×**, **12×** (**inverse**)

24 ÷ 2 = _____	63 ÷ 7 = _____	110 ÷ 11 = _____
20 ÷ 4 = _____	66 ÷ 11 = _____	121 ÷ 11 = _____
18 ÷ 2 = _____	84 ÷ 7 = _____	84 ÷ 12 = _____
5 ÷ 5 = _____	48 ÷ 8 = _____	4 ÷ 2 = _____
32 ÷ 4 = _____	132 ÷ 12 = _____	49 ÷ 7 = _____
25 ÷ 5 = _____	44 ÷ 4 = _____	11 ÷ 11 = _____
18 ÷ 3 = _____	16 ÷ 4 = _____	70 ÷ 7 = _____
60 ÷ 10 = _____	3 ÷ 3 = _____	36 ÷ 4 = _____
32 ÷ 8 = _____	36 ÷ 6 = _____	10 ÷ 2 = _____
50 ÷ 5 = _____	80 ÷ 10 = _____	63 ÷ 9 = _____
24 ÷ 12 = _____	100 ÷ 10 = _____	12 ÷ 12 = _____
21 ÷ 7 = _____	10 ÷ 10 = _____	55 ÷ 5 = _____
7 ÷ 7 = _____	42 ÷ 7 = _____	66 ÷ 6 = _____
12 ÷ 4 = _____	40 ÷ 4 = _____	14 ÷ 7 = _____
90 ÷ 10 = _____	18 ÷ 9 = _____	10 ÷ 5 = _____
60 ÷ 6 = _____	88 ÷ 11 = _____	80 ÷ 8 = _____

Order of Operations

BODMAS – TWO STEPS

Order of Operations

What are they?

Order of Operations

What are they?

The rules that say which calculation comes first in an expression

Order of Operations

What are they?

The rules that say which calculation comes first in an expression

Why?

Order of Operations

What are they?

The rules that say which calculation comes first in an expression

Why?

Because it guarantees that people can all read and solve a problem in the same way

Order of Operations

What are they?

The rules that say which calculation comes first in an expression

Why?

Because it guarantees that people can all read and solve a problem in the same way

Interesting Fact

Order of Operations

What are they?

The rules that say which calculation comes first in an expression

Why?

Because it guarantees that people can all read and solve a problem in the same way

Interesting Fact

Mosquitoes can beat their wings between 450 and 600 times per second

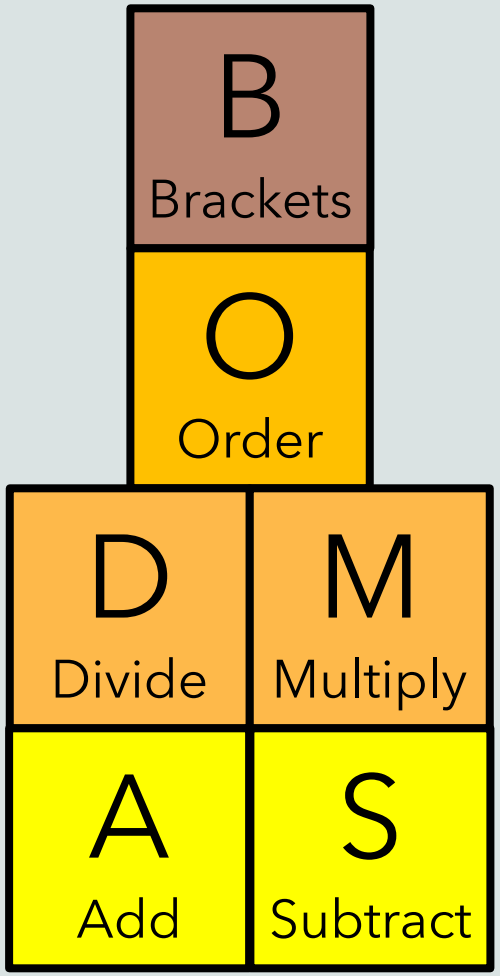
Order of Operations

BODMAS

B	Brackets
O	Orders = powers, exponents, square roots
D	Divide
M	Multiply
A	Add
S	Subtract

Order of Operations

BODMAS



Evaluate the expressions below

Ex 1 $5 + (15 - 4)$

Ex 2 $(8 - 3) \times 4$

Ex 3 $5 \times (6 + 3)$

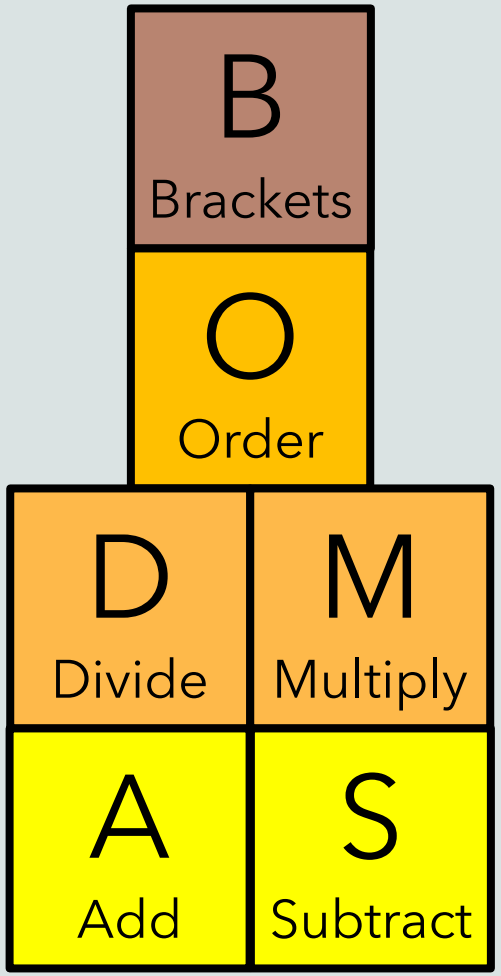
Ex 4 $(12 - 4) \div 2$

Ex 5 $15 \div (5 - 2)$

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



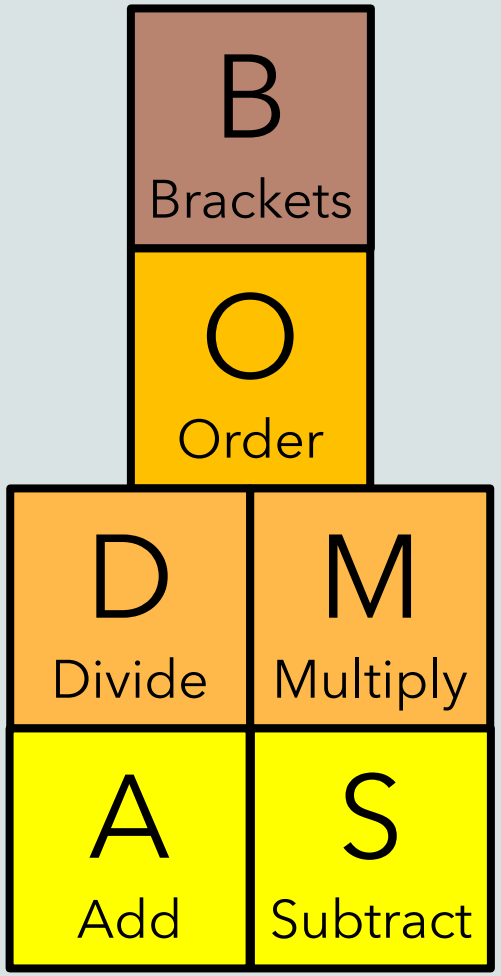
Evaluate the expression

Ex 1 $5 + (15 - 4)$

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



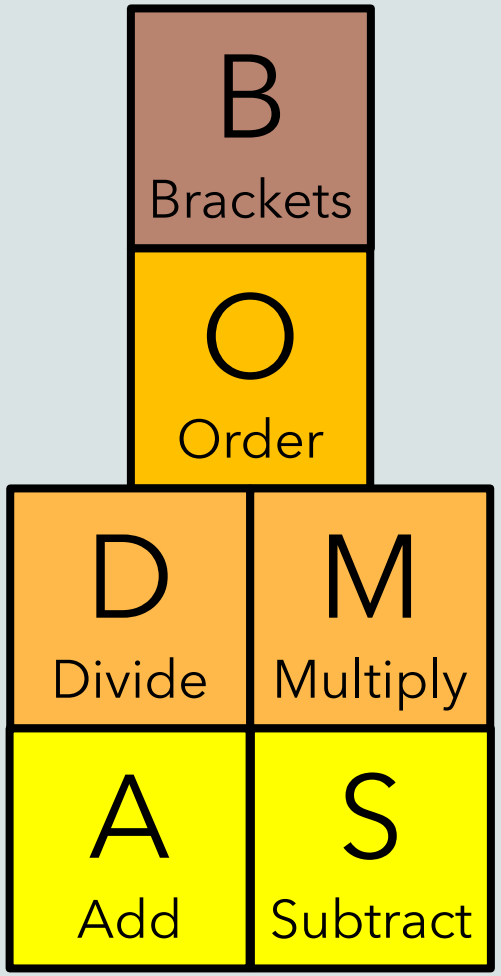
Evaluate the expression

Ex 1 $5 + (15 - 4)$ Brackets

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



Evaluate the expression

Ex 1

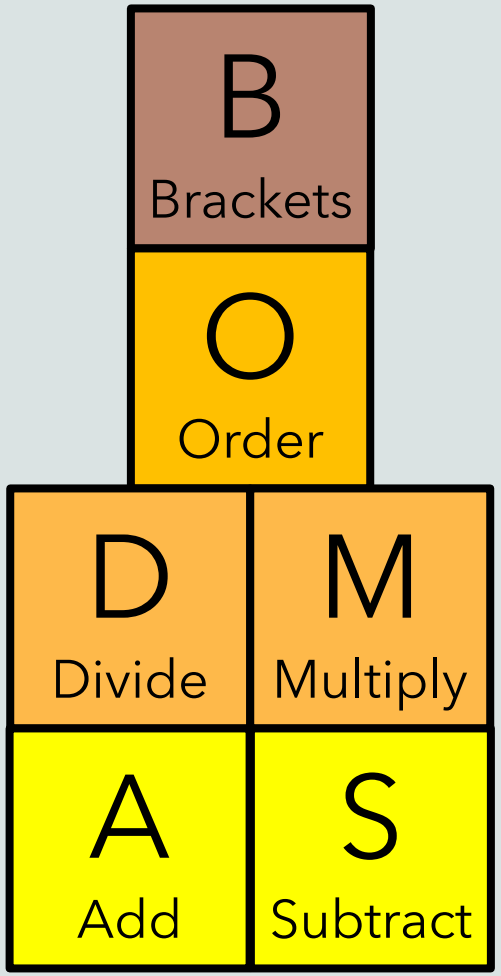
$5 + (15 - 4)$ Brackets

$5 + 11$ Subtracted

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



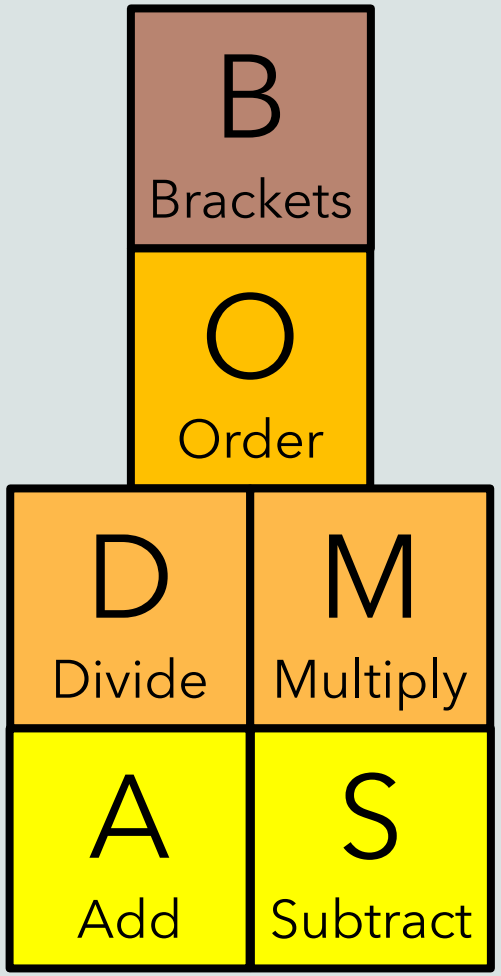
Evaluate the expression

Ex 1	$5 + (15 - 4)$	Brackets
	$5 + 11$	Subtracted
	16	Added

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



Evaluate the expression

Ex 1

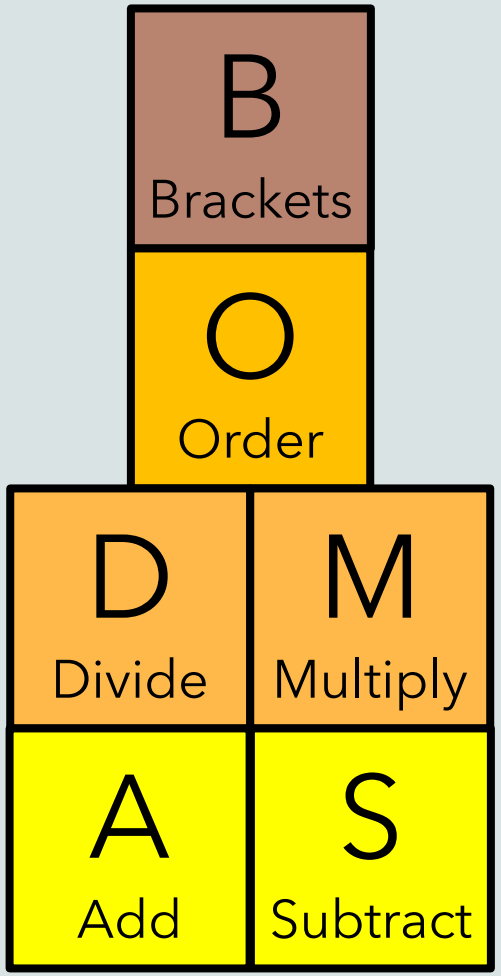
$5 + (15 - 4)$	Brackets
$5 + 11$	Subtracted
16	Added

Answer = 16

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



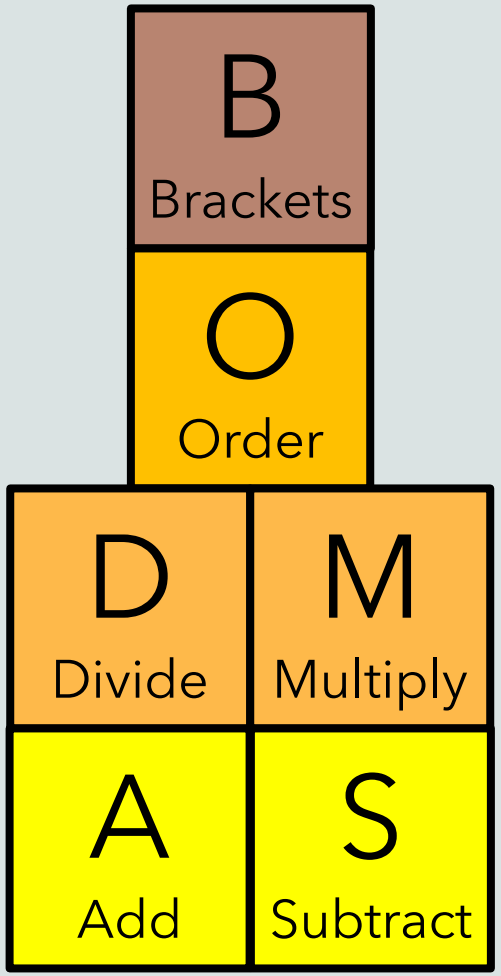
Evaluate the expression

Ex 2 $(8 - 3) \times 4$

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



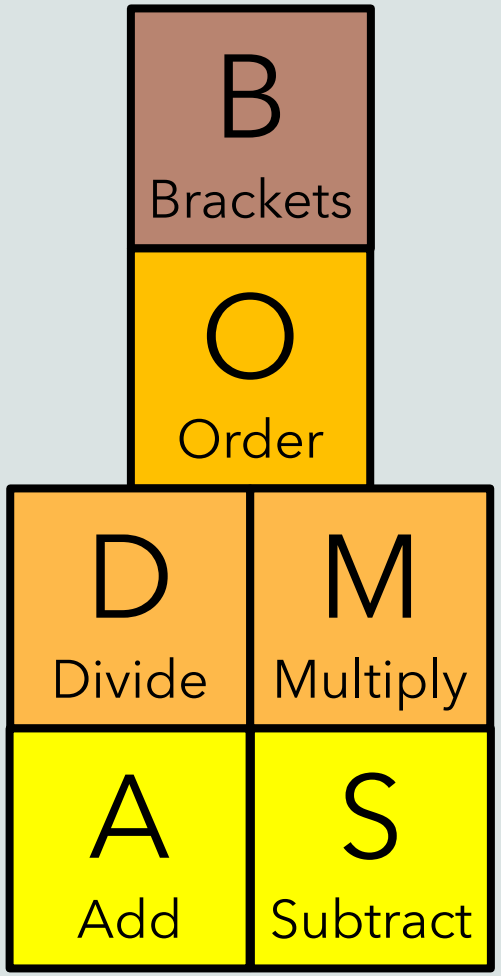
Evaluate the expression

Ex 2 $(8 - 3) \times 4$ Brackets

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



Evaluate the expression

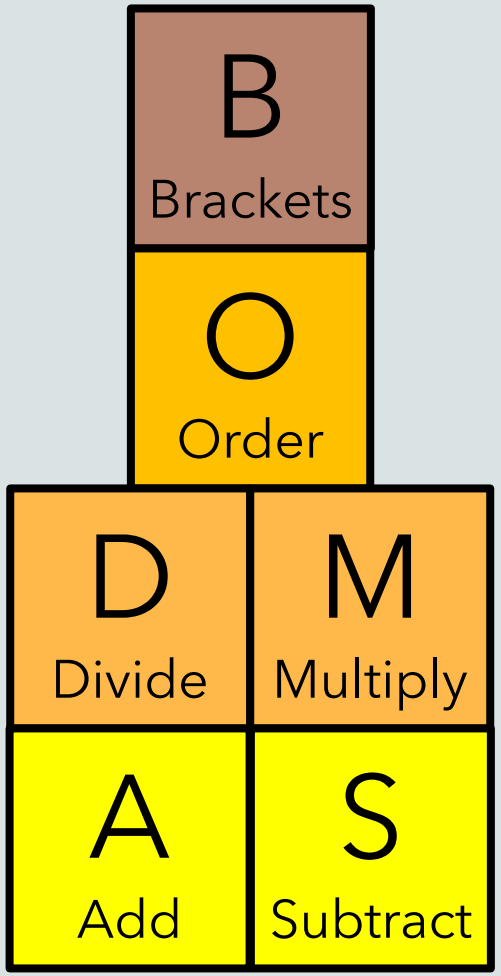
Ex 2 $(8 - 3) \times 4$ Brackets

5×4 Subtracted

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



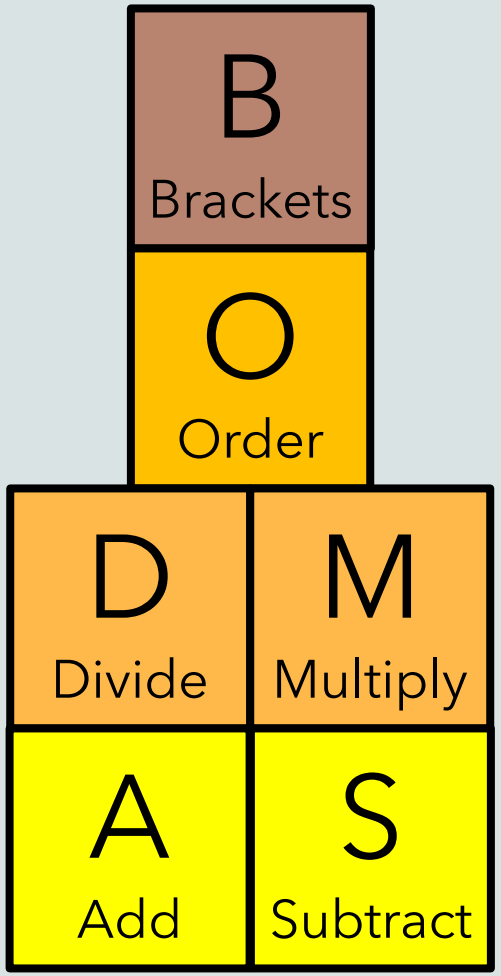
Evaluate the expression

Ex 2	$(8 - 3) \times 4$	Brackets
	5×4	Subtracted
	20	Multiplied

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



Evaluate the expression

Ex 2

$(8 - 3) \times 4$ Brackets

5×4 Subtracted

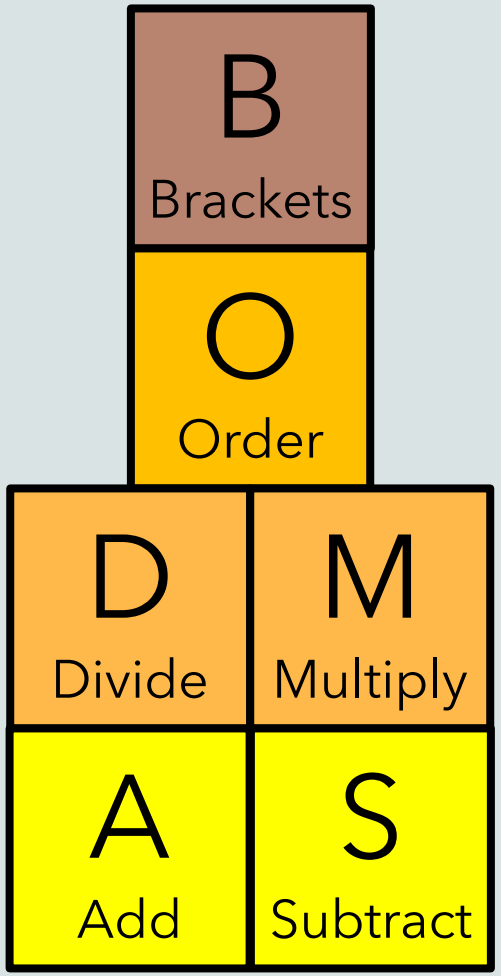
20 Multiplied

Answer = 20

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



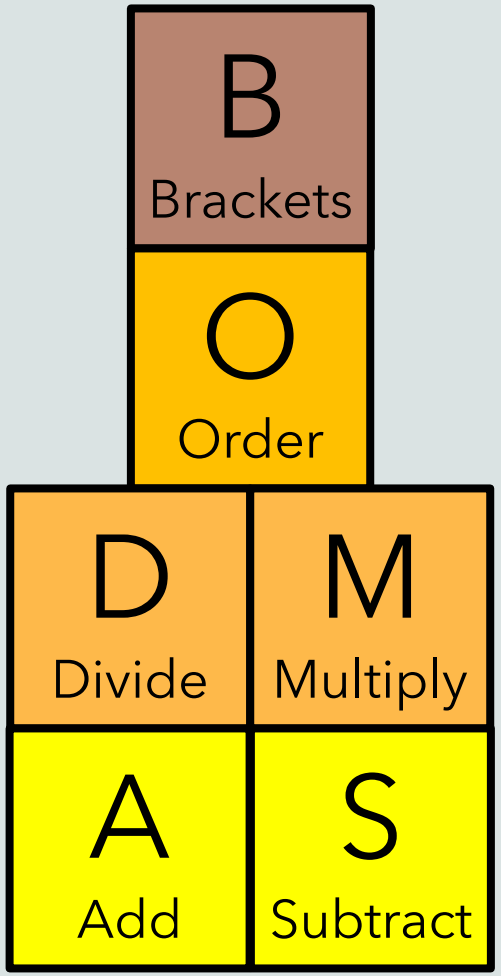
Evaluate the expression

Ex 3 $5 \times (6 + 3)$

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



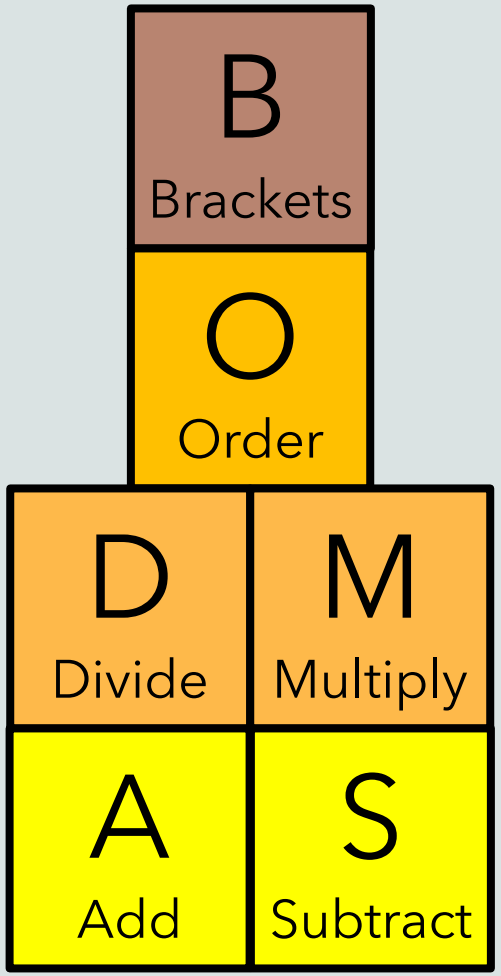
Evaluate the expression

Ex 3 $5 \times (6 + 3)$ Brackets

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



Evaluate the expression

Ex 3

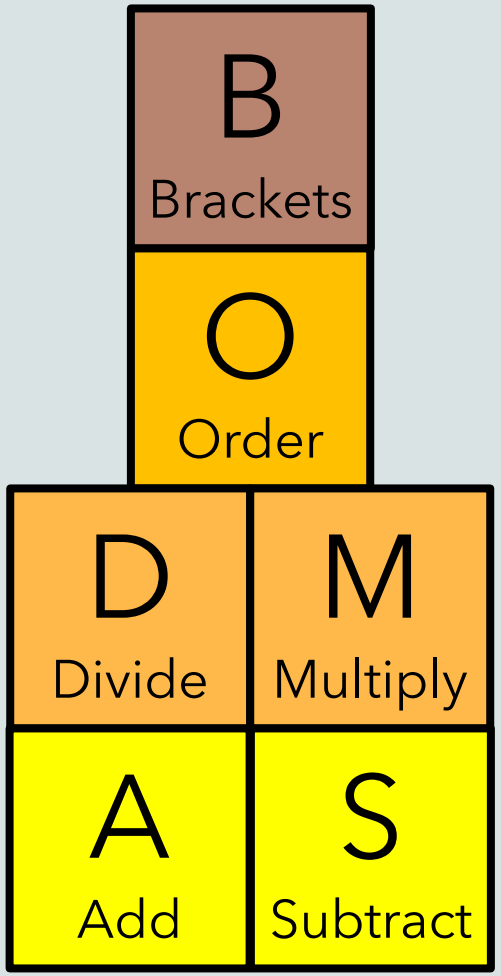
$5 \times (6 + 3)$ Brackets

5×9 Added

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



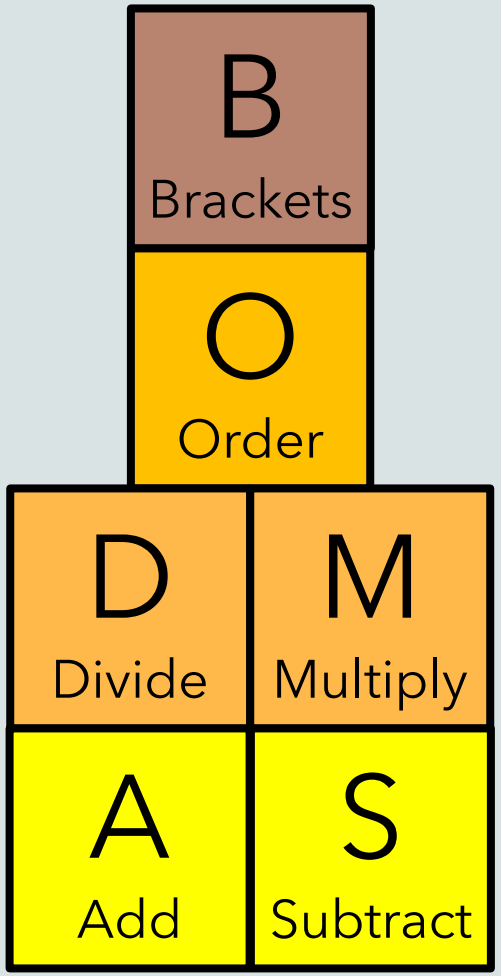
Evaluate the expression

Ex 3	$5 \times (6 + 3)$	Brackets
	5×9	Added
	45	Multiplied

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



Evaluate the expression

Ex 3

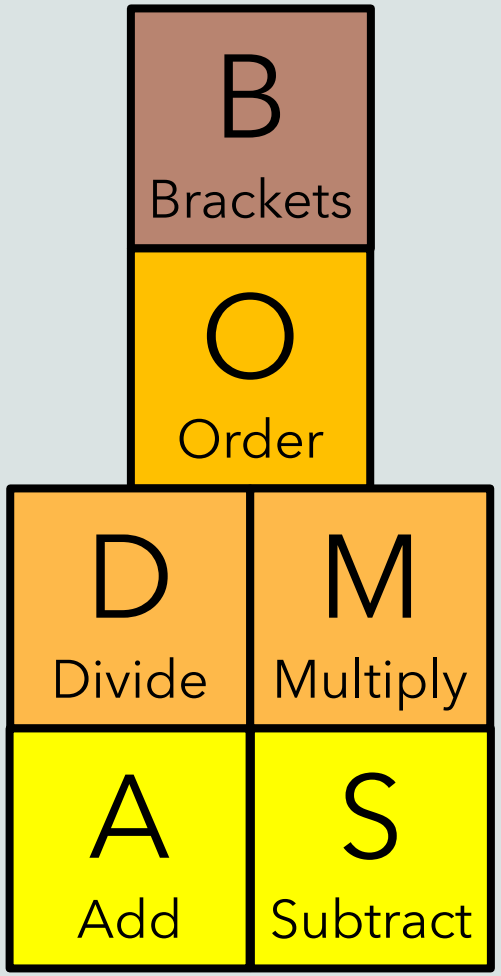
$5 \times (6 + 3)$	Brackets
5×9	Added
45	Multiplied

Answer = 45

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



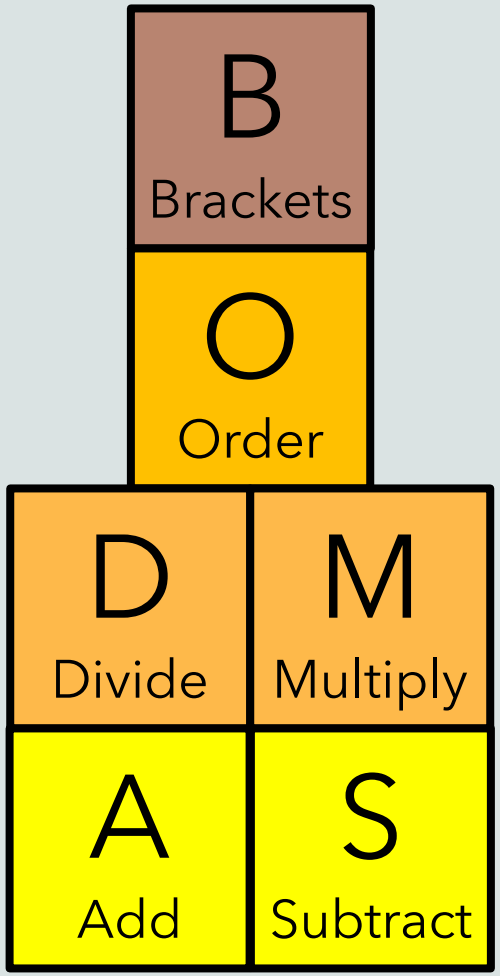
Evaluate the expression

Ex 4 $(12 - 4) \div 2$

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



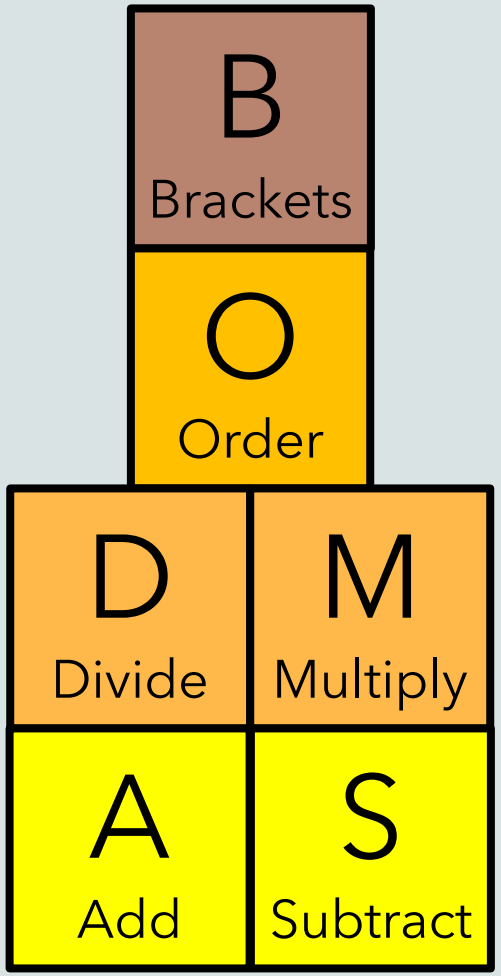
Evaluate the expression

Ex 4 $(12 - 4) \div 2$ Brackets

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



Evaluate the expression

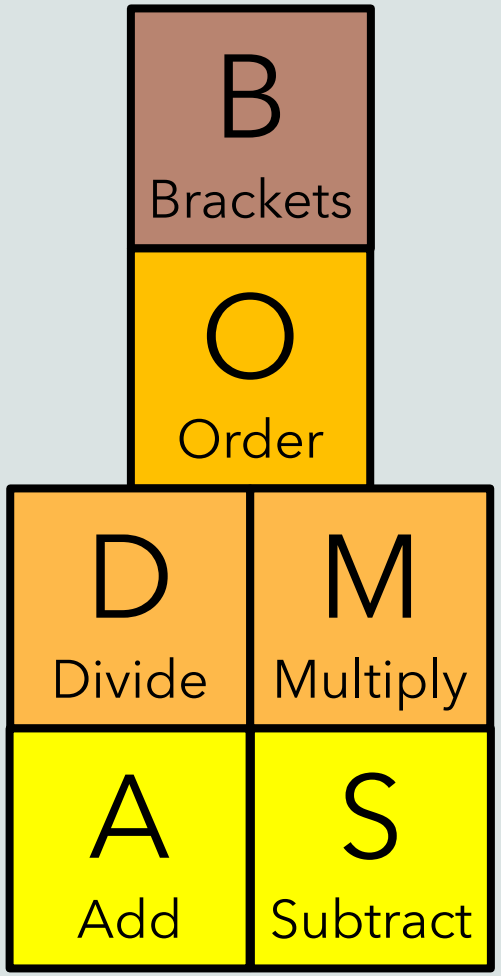
Ex 4 $(12 - 4) \div 2$ Brackets

$8 \div 2$ Subtracted

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



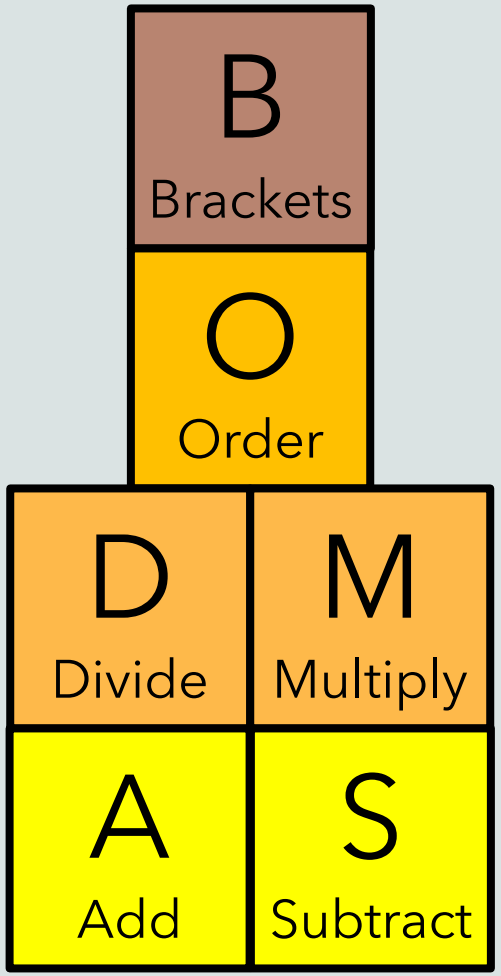
Evaluate the expression

Ex 4	$(12 - 4) \div 2$	Brackets
	$8 \div 2$	Subtracted
	4	Divided

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



Evaluate the expression

Ex 4

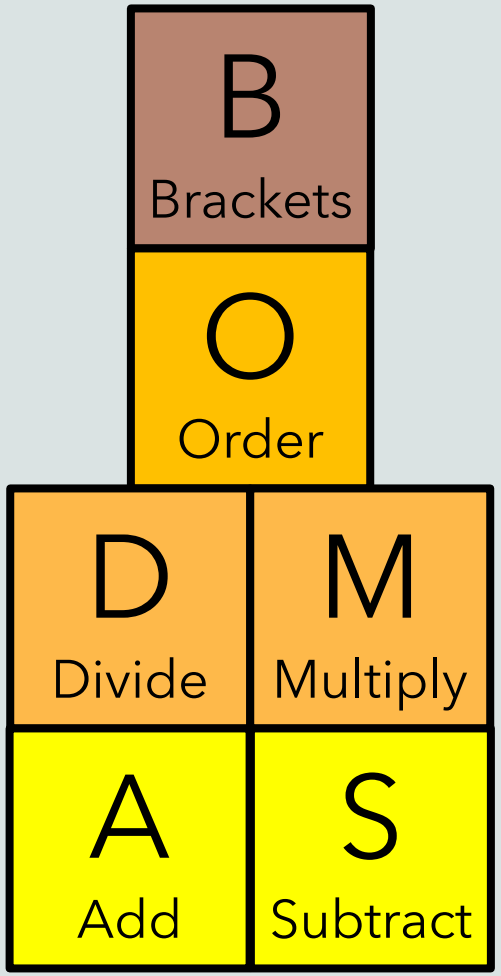
$(12 - 4) \div 2$	Brackets
$8 \div 2$	Subtracted
4	Divided

Answer = 4

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



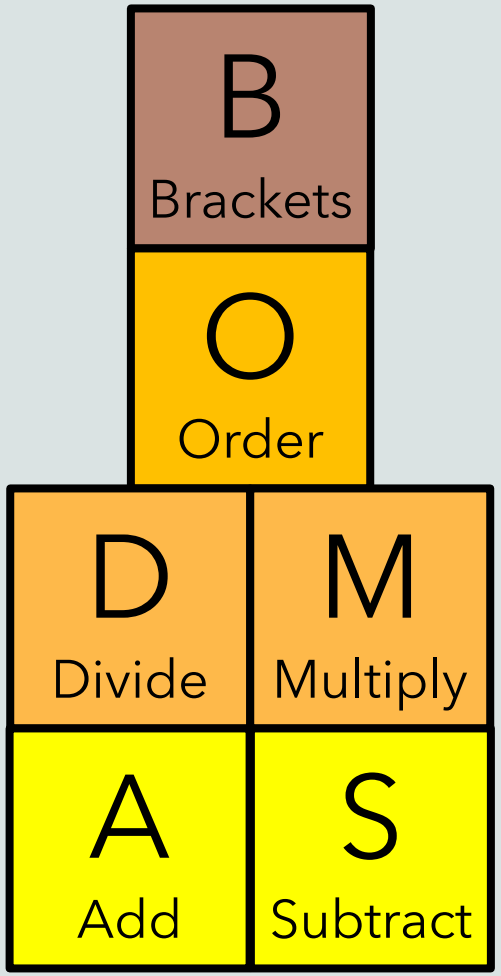
Evaluate the expression

Ex 5 $15 \div (5 - 2)$

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



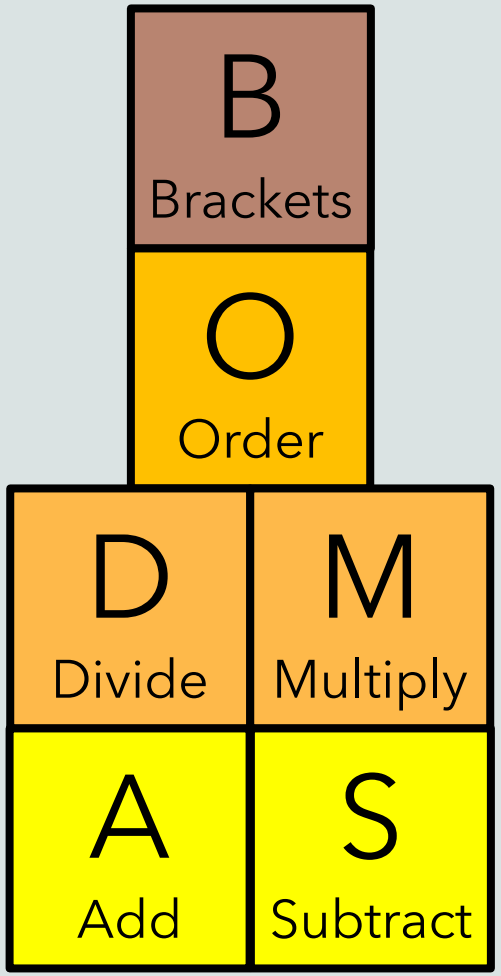
Evaluate the expression

Ex 5 $15 \div (5 - 2)$ Brackets

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



Evaluate the expression

Ex 5

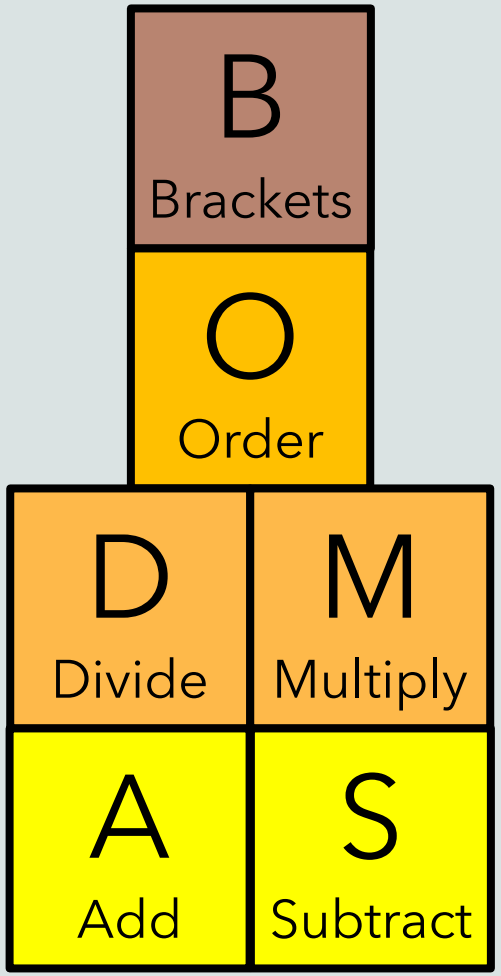
$15 \div (5 - 2)$ Brackets

$15 \div 3$ Subtracted

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



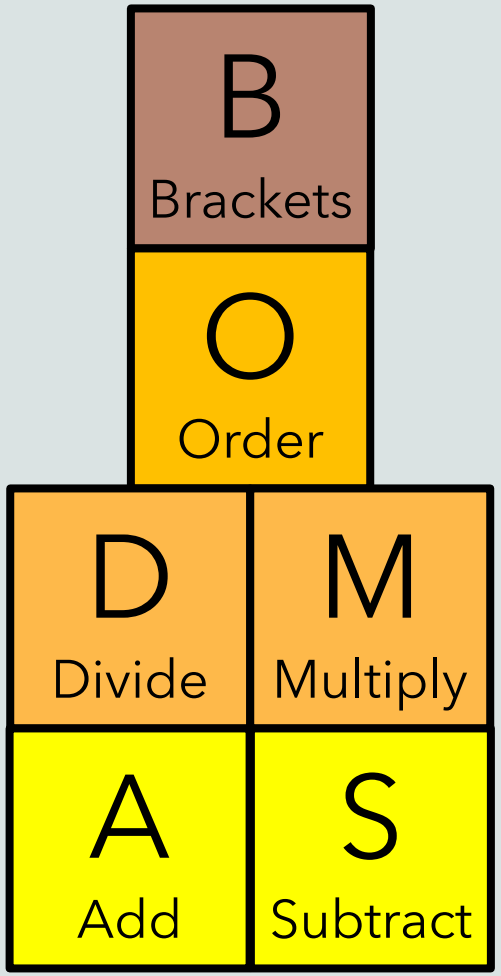
Evaluate the expression

Ex 5	$15 \div (5 - 2)$	Brackets
	$15 \div 3$	Subtracted
	5	Divided

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS



Evaluate the expression

Ex 5

$15 \div (5 - 2)$	Brackets
$15 \div 3$	Subtracted
5	Divided

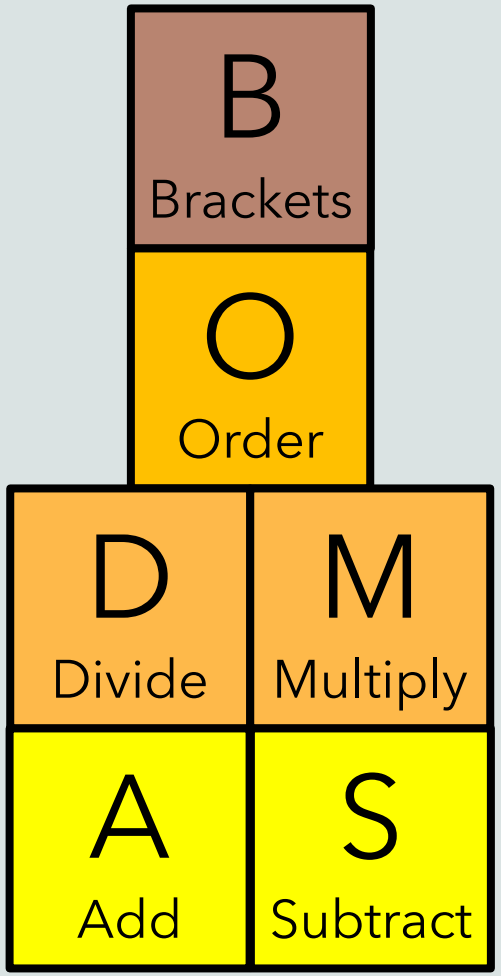
Answer = 5

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS

Your Turn



Evaluate the expressions below

Ex 1 $7 \times (9 + 2)$

Ex 2 $(27 - 6) \div 3$

Ex 3 $12 + (14 - 9)$

Ex 4 $(15 - 6) \times 4$

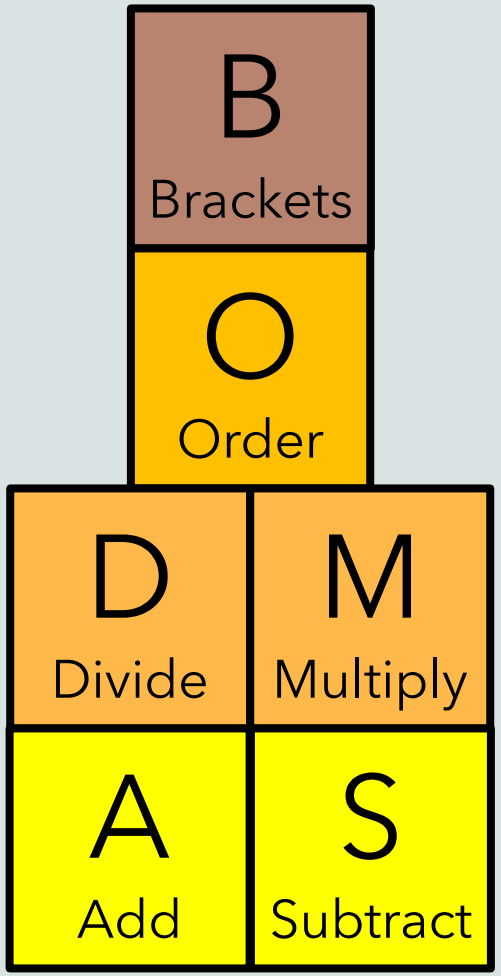
Ex 5 $20 \div (7 - 2)$

Step 1 Brackets
Step 2 Order
Step 3 Divide or Multiply
Step 4 Add or Subtract

Order of Operations

BODMAS

Your Turn



Evaluate the expressions below

Ex 1	$7 \times (9 + 2)$	77
Ex 2	$(27 - 6) \div 3$	7
Ex 3	$12 + (14 - 9)$	17
Ex 4	$(15 - 6) \times 4$	36
Ex 5	$20 \div (7 - 2)$	4

1- Star Activity

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If a long sum (or expression) has no brackets, like 3 + 5 x 5 = it has been agreed by mathematicians that the multiplying would be worked out before the addition, even if it does not appear first in the sum.

If a sum has a bracket as part of it, such as 4 x (5 + 4) = then it has been agreed that the part inside the brackets will be calculated first.

There is an easy way to remember this: BODMAS

Brackets **O**f **D**ivision **M**ultiplication **A**ddition **S**ubtraction	Any sum in brackets is calculated first. Division and multiplication are calculated before addition and subtraction.

Try these to get the idea!

1. 6 + 4 x 2 =

2. 4 + 4 ÷ 2 =

3. 8 + 6 – 3 =

4. 5 + 5 x 4 =

5. 12 + 3 x 2 =

6. 2 x 4 + 5 =

2- Star Activity

Remember BODMAS. Any calculations inside brackets must be completed before any other part of the sequence.

Without using a calculator work out the answers to the following sequences:

1. 100 – (20 x 3) =
2. (35 – 15) + (27 – 7) =
3. 15 + (6 x 6) =
4. (4 + 5) x (3 + 6) =
5. (5 + 5) x (5 – 2) =
6. 50 – (6 x 6) =
7. (4 + 8) x (3 – 2) =
8. (9 – 3) + (6 x 6) =
9. (5 x 7) – (2 x 5) =
10. 56 – (4 x 7) =
11. 78 – (10 x 7) =
12. (7 x 7) + (4 x 8) =
13. (45 – 23) + (5 x 8) =
14. 38 – (5 x 7) =
15. (100 – 45) + (7 x 7) =
16. 45 – (9 x 4) =

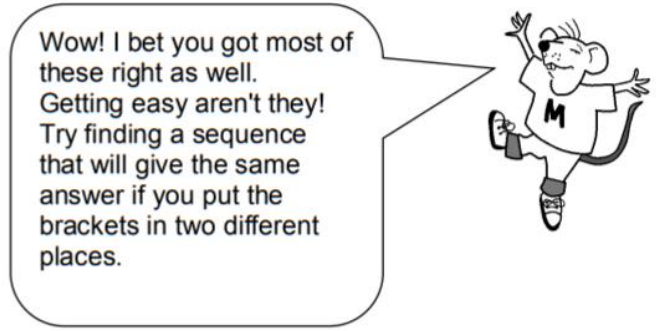
Just a couple of trickier problems.
By putting in brackets in different places, how many different sums and answers can you find for these two sequences:

1. 4 + 4 x 5 – 3 =
2. 8 + 5 x 1 + 3 – 6 =

Remember BODMAS shows you the order in which operations should be carried out.

What is the value of ;

1. (4 x 2) + (3 x 3) =
2. (4 x 4) + (5 x 5) =
3. (6 x 6) – (4 x 4) =
4. (9 x 9) – (8 x 8) =
5. 18 – (4 x 2) =
6. 4 x (4 – 2) =
7. 18 – (9 x 4) + 32 =
8. (12 x 12) – (11 x 12) =
9. 30 – (5 x 4) =
10. 67 – (9 x 5) =
11. (8 + 6) x 4 =
12. 8 x 7 – 3 =
13. (4 x 9) – (4 x 8) =
14. 56 – (5 x 9) =
15. 72 – (8 x 7) + 9 =
16. (9 x 8) + (9 x 8) =



3- Star Activity

Remember BODMAS shows you the order in which operations should be carried out.

Write the following sums out without changing the order of the numbers. To make the sums correct put in the brackets if necessary to show which part has to be completed first.

$8 + 4 \times 6 - 5 = 27$

$8 + 4 \times 6 - 5 = 12$

$8 + 4 \times 6 - 5 = 67$

You can see the need for a rule on this otherwise everyone would be doing sums in different ways and getting different answers!

Put in the signs and/or brackets to make the following true:

1.	4	4	3	= 16	**6.**	4	6	4	= 20
2.	7	6	11	= 12	**7.**	10	3	5	= 35
3.	2	2	4	= 8	**8.**	2	4	6	= 1
4.	2	2	4	= 16	**9.**	24	2	4	= 8
5.	4	3	3	= 13	**10.**	5	4	4	= 21

Do you remember what these signs mean? < and >

< means is less than

> means is more than

Put the correct sign into the statements below. You will have to work out the sums first, remembering BODMAS

1.	$6 + 4 \times 3$	☐	$3 \times 4 + 6$
2.	$8 \times 8 - 20$	☐	$6 \times 6 + 20$
3.	$2 \times 32 + 46$	☐	$62 + 4 \times 9$
4.	$8 + 8 \times 6$	☐	$6 + 8 \times 8$
5.	$120 - 6 \times 7$	☐	$6 \times 7 + 40$
6.	$140 + 4 \times 7$	☐	$32 \times 5 + 5$

Investigate: Using only these numbers and signs make a statement or expression which will give you the biggest possible answer:

8 + 7 – 6 x 4 and one set of brackets.