



## Math 5

### UNIT 1 - Numerical Expressions 1-4 Order of Operations with Parentheses

Name:

Date:

#### Common Core Standards

#### [CCSS.MATH.CONTENT.5.OA.A.1](#)

Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.



# 1-4 Order of Operations with Parentheses



Parentheses



Exponents



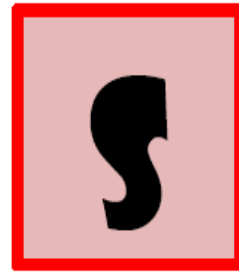
Multiplication



Division



Addition



Subtraction

# The PEMDAS Rule

## Step #1

You work on the numbers and operations inside the grouping symbols first. Work on the calculation inside the **parentheses**, then the calculation inside the **brackets** and lastly, the calculations inside the **braces**.

## Step #2

Find the value of numbers with exponents (if there is any).

## Step #3

If all the calculations inside the grouping symbols are done, you may now start working on the calculations from left to right like the arrows below.



## Step #4

Work on with **MULTIPLICATION** or **DIVISION**, whichever comes first, from LEFT to RIGHT.

## Step #5

Work on with **ADDITION** or **SUBTRACTION**, whichever comes first, from LEFT to RIGHT.

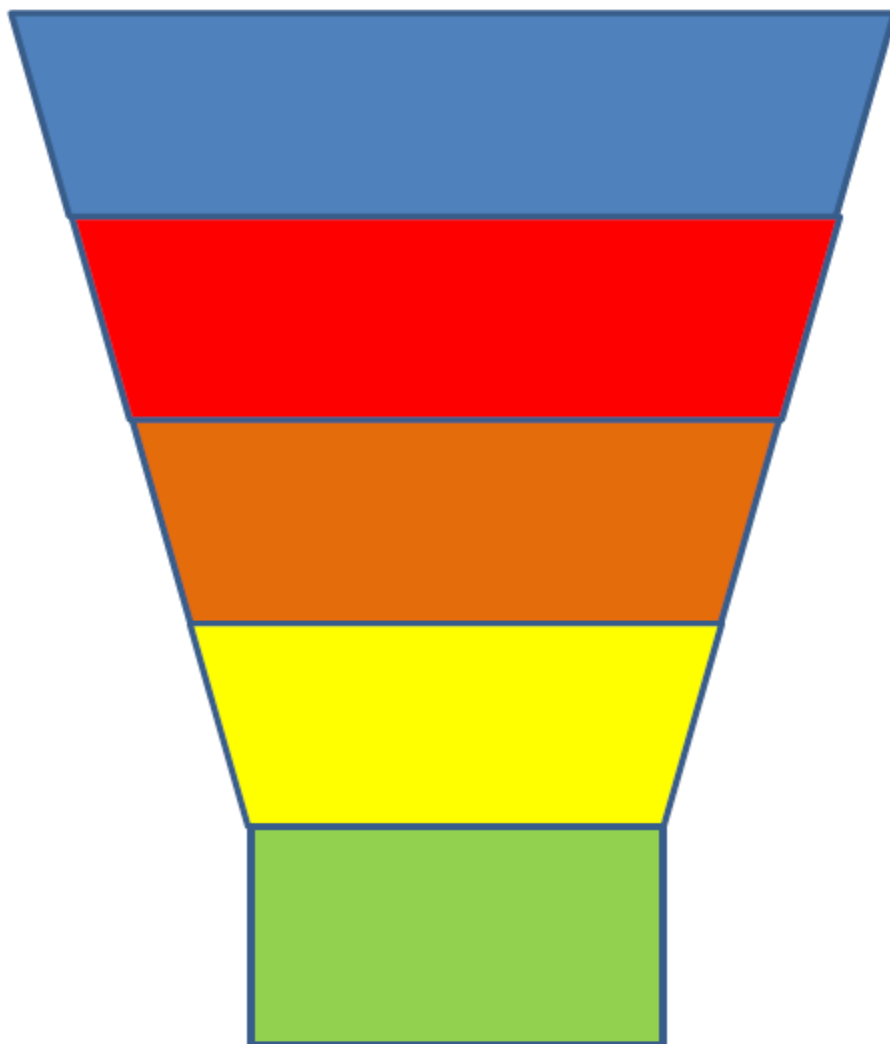
# THE FUNNEL METHOD

1. Write the expression horizontally.
2. Determine the operation that should be done first, following the **PEMDAS** rule and underline it.
3. Perform the said operation and rewrite the expression the way it appeared in the original expression.
4. Underline the next operation following the MDAS rule.
5. Continue performing the operations one at a time, rewrite the expression after each step until you've completed all the operations... and you have one value left.

## Fill Me Up!

Evaluate the given numerical expression by filling up the Funnel with the correct order of operations.

$$5 \times (10 - 2) \div (11 + 9)$$



## Task Cards

Evaluate the following numerical expressions. Match the pink card with the blue card.

1.

$$9 + (12 \div 4) \times (3 - 2) + 5$$

a.

6

2.

$$[6 \times (4 + 2) \div 12] - 3$$

b.

1

**3.**

$$[(5 + 4) \times 3] \div 9 \times (4 - 2)$$

**c.**

**2**

**4.**

$$7 + [24 \div (3 \times 2) + 3] - 4$$

**d.**

**17**

**5.**

$$(10 \div 5) + (12 \div 6) - (8 \div 4)$$

**e.**

**0**

**6.**

$$[3 \times (18 \div 3) - 10] - [14 \div (12 \div 6)]$$

**f.**

**10**



## ANSWER KEY

### Situation 1

1.

$$\begin{aligned} & 5 \times \underline{(10 - 2)} \div (11 + 9) \\ & 5 \times 8 \div \underline{(11 + 9)} \\ & 5 \times 8 \div 20 \\ & \underline{40} \div 20 \\ & 2 \end{aligned}$$

### Task Cards

- |    |   |
|----|---|
| 1. | D |
| 2. | E |
| 3. | A |
| 4. | F |
| 5. | C |
| 6. | B |