Name:_____

Section 1.2 Notes

Order of Operations

Write down how you would make your perfect ice cream sundae.

Don't forget any steps!

1. Get out a bowl and utensils.
2.
3.
4.
5.

Order of Operations

Just like making an ice cream sundae, arithmetic is a **process**. You must do certain things before other things.

1. _____
2. _____
3. _____
4. _____

Note: Multiplying and Dividing are on the same level. Adding and Subtracting are on the same level.

Special Part

What should I do if we have both multiplication and division, which comes first?

Work left to right, just like reading.

What should I do if we have both addition and subtraction, which comes first?

Work left to right, just like reading.

A Trick: PEMDAS!!!

- Parentheses — Please
- Exponents — Excuse
- Multiply — My
- Divide — Dear
- Add — Aunt
- Subtract — Sally

Example 1

$$4 + 6 \div 2$$

First?

Second?

*Be sure to bring down the parts of the problem you did not complete in each step. (The other numbers and operations that will come later.)

Example 2

$$(2 + 3) \times 5$$

First?

Second?

Example 3

$$(5 - 3)^2 \; x \; 3$$

First?

Second?

Third?

Example 4

$$4 - 3 + 5$$

First?

Second?

Move from left to right if there is a tie

Example 5 → Fractions!

$$\frac{5 - 3 + 18}{2^2}$$

Top part: $5 - 3 + 18$ Bottom part: 2^2

$$\frac{top\ part\ answer}{bottom\ part\ answer} = \underline{\qquad\qquad}$$ Then Divide!

*Solve numerator (top part) and denominator (bottom part) **SEPERATELY**, then **DIVIDE** (if possible)*

Order of Operations Practice Problems

Use "PEMDAS" to help simplify each expression. Check your work on a calculator and record keystrokes if your answers do not match each other.

1. $8 + 7 \cdot 9$

2. $35 - (17 - 2) \div 5$

3. $\dfrac{90 - 22}{28 - 11}$

4. $12(2 + 7) - 24 \div 12$

5. $26 - [\,(25 - 11) - 2^3]$

6. $\dfrac{12(30-12)}{3^2}$