Aledo Independent School District

GRADES 6-12 DISTANCE LEARNING

School Name	Aledo High School
Grade Level	9-12
Week of	4/27/2020 *All assigned work due by Sunday at midnight

(SUBJECT AREA)

Estimated Time to Complete: 2 hours
Resources Needed: 1.1 Notes and assignment, Google Slides presentation

Lesson Delivery (What do we want you to learn?):

This lesson is on the ORDER OF OPERATIONS. We have done this earlier in the year – so it is mostly a review. However, in this lesson, we will learn the rules for Order of Operations so that we can evaluate expressions correctly.

Engage and Practice (What do we want you to do?):

1) **Read over the Order of Operations Notes that details the rules for Order of Operations.**
2) **Look at the Google Slides Presentation which will further explain how to use these rules to solve problems.**
3) **Complete homework – problems 1-8**
4) **Submit homework in Google Classroom**

Create and Submit (What do we want you to turn in?):

☐ **1.1 homework – Order of Operations**

Optional Extension Opportunity (What do we want you to do if you want to extend your learning?):

Go into Kahn Academy and find a video on how to solve problems using Order of Operations. From this video write a paragraph describing the steps for solving problems using Order of Operations. Please give an example.

Or –

Draw a thinking map showing the steps for solving Order of Operations

TOPIC # 1 – 1: Order of Operations

Which is correct?

$$15 + 3 \bullet 2 = 36$$

$$\ast 15 + 3 \bullet 2 = 21$$

Rules for order of operations

1) Parenthesis

2) Exponents

3) Multiplication and Division (left to right)

4) Addition and Subtraction (left to right)

1) $15 - 14 \bullet 3 \div 6$

$15 - 42 \div 6$

$15 - 7$

8

2) $\dfrac{2 \bullet 7 + 5 \bullet 3}{30 - 29}$

$\dfrac{14 + 15}{30 - 29}$

$\dfrac{29}{1}$

29

3) $3^2 \bullet 10 - 6^2 \div 12$

$9 \bullet 10 - 36 \div 12$

$90 - 3$

87

4) $16 \div 4 \bullet 3^2 - 6(2 \bullet 3)$

$16 \div 4 \cdot 9 - 6(2 \cdot 3)$

$16 \div 4 \cdot 9 - 6(6)$

$16 \div 4 \cdot 9 - 36$

$4 \cdot 9 - 36$

$36 - 36$

0

5) $2 \bullet 7 + 5 - 3 + 6 \bullet 5 + 3$

$14 + 5 - 3 + 30 + 3$

$19 - 3 + 30 + 3$

$16 + 30 + 3$

$46 + 3$

49

6) $$\frac{20 - [4^2 \div (2+14)] + 5}{4^2 - 13} = \frac{20 - [16 \div 16] + 5}{16 - 13}$$

$$= \frac{20 - 1 + 5}{16 - 13}$$

$$= \frac{24}{3}$$

$$= 8$$

Order of Operations

Rules for Order of Operations

Who is correct?

Mrs. Loftin: $4 + 2 \times 3 = 6 + 4 = 10$

Coach Johnson: $4 + 2 \times 3 = 4 + 2 = 6 \times 3 = 18$

Practice Problem....

$$(3 + 1)^3 \times 2 + 4 = \_\_\_\_\_$$

) Do everything in ()	$(3 + 1) = 4$
) Simplify exponents	$4 \times 4 \times 4 = 64$
) Multiply (L to R)	$64 \times 2 = 128$
) Add	$128 + 4 = 132$

A # 1 - 1

Name_____ Date_____ Period_____

Order of Operations

Simplify each expression using order of operations.

1. $4 + 3(5 - 2)$

2. $16 - 32 \div 4$

3. $14 - 16 \div 8 + 3^2 \bullet 5$

4. $10 - 3(5 - 2)$

5. $3(7 + 4) - 18 \div 3^2$

6. $\dfrac{5 \bullet 6 + 2}{12 - 4}$

7. $\dfrac{5 \bullet 2^2 + 2}{17 - 2 \bullet 3}$

8. $7 + 2 \bullet 28 - 3 \bullet 9 + 39 \div 3$