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| Mini Lesson #6: Order of Operations (Integers and Expressions Unit - Math 7) |
| **LEARNING Objectives** \_\_\_\_ I know the 4 basic operations and the different symbols used for each operation\_\_\_\_ I can explain what an numeric expression is and can give examples\_\_\_\_ I know and understand words like simplify and evaluate numerical expressions\_\_\_\_ I know the steps for order of operations and can apply them to simplify numerical expressions\_\_\_\_ I can take a multi-step word problem and write the numeric expression for the word problem and then apply order of operation to find the answer**VOCABULARY**: Operation Expression Numerical Expression |
| **Order of Operations (OOO) -** series of steps used to solve numerical expressions. 1. Simplify GROUPING SYMBOLS
2. Evaluate EXPONENTS
3. MULTIPLY OR DIVIDE in order from left to right (whichever comes first)
4. ADD OR SUBTRACT in order from left to right (whichever comes first)
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| **Example 1: -**36 – 18 ÷ 2 • 3 + 8 **Example 2:** 3[2 ÷ (-3 + 4) • 9 – 52] |

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| Practice for ML #6 - OOO (Math 7)Simplify each expression:1. 1) 9 + -12 • 2
2. 2) 6 - 4 • 3 + 23
3. 3) 36 – 2 • 6 ÷ 3

 4) 8 ÷ (1 - 3) • 52 – 2  |  5) 42 + -48 ÷ (10 - 4) 1. 6) 2[(4 + 12 ÷ 4) – 2]

7) $\frac{4^{2}- 6 ÷ -2 + 2}{-3+ 6 x 3 ÷9 }$ |
| **Compare Using: <, >, =** 1. 8 • 3 – 2 [ ] 8 • (3 - 2) 2) (6 + 10) ÷ 2 [ ] 6 + 10 ÷ 2
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| **Word Problems Involving Order of Operations** 1. Samantha bought 5 wooden beads for $3 each and 8 glass beads for $2 each. Write and evaluate the expression.
 | 1. Greg walked 2 miles a day for the first week of his exercise plan. Then, he walked 3 miles for the next four days. How many miles did Greg walk?
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