## ASSESSMENT - EXPRESSIONS OCLOCK



Make a clock that is at least 8.5 inches in diameter on cardstock (optional). The hours on the clock must be an expression (that you create using the criteria below) that is equal to the hour of where that expression is located on the clock when solved correctly.

Example: The expression located at the top of the clock (in the $12^{\text {th }}$ hour spot) must equal 12 when solved. $6 \bullet 2=12$ hence $6 \bullet 2$ is in the 12 spot.

The Order of Operations ALWAYS apply. Be creative and follow instructions carefully. Double check the math to make sure it works. Have fun and be creative! Use what you have learned so far!

## Each expression must contain the following for each hour:

Hour 1: at least 3 different numbers \& 2 different operations.
Hour 2: at least 3 different numbers, 2 different operations, \& parenthesis.
Hour 3: at least 3 different numbers \& 2 operations- an exponent $\&$ subtraction.
Hour 4: at least 3 different numbers (at least 1 negative) \& 2 operations- multiplication \& subtraction $\underline{\text { OR }}$ division \& addition.

Hour 5: at least 3 different numbers (at least 1 negative) \& 2 operations- multiplication \& addition $\underline{\text { OR division }}$ \& subtraction.

Hour 6: at least 4 different numbers (at least 2 negatives) \& 3 different operations
Hour 7: at least 4 different numbers \& 3 operations- division, addition, \& a different operation
Hour 8: at least 4 different numbers \& 3 operations- multiplication, subtraction, \& a different operation
Hour 9: at least 4 different numbers (at least 1 negative), 3 different operations, \& parenthesis
Hour 10: at least 4 different numbers (at least 1 negative), 3 different operations, $\&$ an exponent
Hour 11: at least 4 different numbers \& 3 different operations, parenthesis, \& an exponent
Hour 12: at least 4 different numbers (at least 1 fraction) \& 3 different operations
*YOU CANNOT USE THE HOUR IN THE EXPRESSION. (For example, "2" may not be used in the expression for the 2 o'clock hour.
*Zero may be used a MAXIMUM of three times on the entire clock.
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Assessement: Expressions O'Clock Work

| Hour | Criteria | Solve (Show EACH step) |
| :---: | :---: | :---: |
| 1 | - 3 different numbers <br> - 2 different operations <br> - Must equal 1 |  |
| 2 | - 3 different numbers <br> - 2 different operations <br> - Parenthesis <br> - Must equal 2 |  |
| 3 | - 3 different numbers <br> - Exponent \& Subtraction <br> - Must equal 3 |  |


| 4 | - 3 different numbers <br> - At least 1 negative <br> - Multiplication \& Subtraction OR Division \& Addition <br> - Must equal 4 |  |
| :---: | :---: | :---: |
| 5 | - 3 different numbers <br> - At least 1 negative <br> - Multiplication \& Addition OR Division \& Subtraction <br> - Must equal 5 |  |
| 6 | - 4 different numbers <br> - At least 2 negatives <br> - 3 different operations <br> - Must equal 6 |  |


| 7 | - 4 different numbers <br> - 3 operations (Division, Addition, \& a different operation) <br> - Must equal 7 |  |
| :---: | :---: | :---: |
| 8 | - 4 different numbers <br> - 3 operations (Multiplication, Subtraction, \& a different operation) <br> - Must equal 8 |  |
| 9 | - 4 different numbers <br> - At least 1 negative <br> - 3 different operations <br> - Parenthesis <br> - Must equal 9 |  |



