Reteaching
1.4 Order of Operations

A mathematical expression contains only numbers and expressions. You must follow a set of rules, called the **order of operations** to correctly evaluate a numerical expression. The order is;

1. Parenthesis
2. Exponents
3. Multiplication and Division
4. Addition and Subtraction

PE(MD)(AS) – Please Excuse My Dear Aunt Sally

$$8 + (9 + 1) \div 2 * 3^2$$

	$8 + (9 + 1) \div 2 * 3^2$
1. Do all operations inside parenthesis.	$8 + 10 \div 2 * 3^2$
2. Find the values of any numbers with exponents.	$8 + 10 \div 2 * 9$
3. Multiply or Divide in order from left to right.	$8 + 5 * 9$
	$8 + 45$
4. Add or subtract in order from left to right.	53

Let's try a few.

$$6 + (15 + 5^2) \div 2$$

	$6 + (15 + 5^2) \div 2$
1. Do all operations inside parenthesis.	$6 + (15 + \underline{\quad}) \div 2$
There are 2 operations in the parenthesis – we do the exponent first since it is first in the order of operations.	$6 + \underline{\quad} \div 2$
3. Multiply or Divide in order from left to right.	$6 + \underline{\quad}$
4. Add or subtract in order from left to right. (none)	$\underline{\quad}$

$$100 - (8 + 6) * 2^4$$

	$100 - (8 + 6) * 2^4$
1. Do all operations inside parenthesis.	$100 - \underline{\quad} * 2^4$
2. Find the values of any numbers with exponents.	$100 - 14 * \underline{\quad}$
3. Multiply or Divide in order from left to right.	$100 - \underline{\quad}$
4. Add or subtract in order from left to right.	$\underline{\quad}$

$9 * 8 - (5 + 5 * 2^3)$	$3^3 \div 9 + (4 - 2) * 2$	$3 * (7 + 5) - 5^2$	$(6 - 5 + 4) \div 5 * 6$
$9 * 8 - (5 + 5 * \underline{\quad})$	$3^3 \div 9 + \underline{\quad} * 2$	_____	_____
$9 * 8 - (5 + \underline{\quad})$	$\underline{\quad} \div 9 + \underline{\quad} * 2$	_____	_____
$9 * 8 - \underline{\quad}$	$\underline{\quad} + \underline{\quad} * 2$	_____	_____
$\underline{\quad} - \underline{\quad}$	$\underline{\quad} + \underline{\quad}$	_____	_____
27	7	_____	_____