## **Order of Operations** P E M D Α S \*\* Sometimes there we can skip a step, if that operation does not occur! For example, $8^2 - 4 \cdot 2$ does not have parentheses, division, or addition\*\* Example: Simplify $1 + 3^2 \cdot (5 - 3)$ Steps We will evaluate (5-3) which is 2 P- Parentheses We now have $1 + 3^2 \cdot 2$ We will evaluate 3<sup>2</sup> which is 9 **E- Exponents** We now have $1 + 9 \cdot 2$ M/D – Multiply/Divide FROM LEFT TO RIGHT We only have multiplication, so we will evaluate 9 • 2 which is 18 We now have 1 + 18We will evaluate 1 + 18 = 19A/D- Add/Subtract FROM LEFT TO RIGHT Simplify the following: 1.) $9 + 2 \cdot 3$ 2.) $(7+1) \cdot 5$ 3.) $8 + 9 - 2 \cdot 3$ P P P E E E M M M D D D A A Α S S S 5.) $20 \div 2^2 \cdot 2 - 1$ 4.) $7 + 5 \div 1 \cdot 2$ P P E E M M D D Α Α

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6.) 
$$(4-2) + 8 \div 2 - 7$$

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P E M D A

8.) 
$$(10-2) \div 4 \cdot 3 + 15$$

9.) 
$$2^3 + 8 \div 4 - 7$$

P E M D A

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