

Remember:

-Five minutes of silence

Please have out:

- Pencil

- Notebook

- A piece of lined paper

Warm Up:

*Do your warmup on a separate sheet of paper. **DO NOT** do it in your notebook

Solve using the order of operations

$$8 \cdot (9 - 7) \div 4 + 2$$

$$8 \cdot \checkmark 2 \div 4 + 2$$

$$16 \div 4 + 2$$

$$\checkmark 4 + 2$$

$$\textcircled{6}$$

$$\sqrt{9} - (10 \div 5 \cdot -2) + 3^2$$

$$\sqrt{9} - (\checkmark 2 \cdot -2) + 3^2$$

$$\sqrt{9} - -4 + 3^2$$

$$3 + 4 + 9$$

$$7 + 9$$

$$\textcircled{16}$$

Translating and Evaluating Expressions

Variable - a letter that represents a number

$$3x + 2$$

$$\frac{(7)(m)}{3}$$

Expressions - a mathematical phrase that can include numbers, operations symbols and variables

$$5x, x + 2, 3x^2 - 8, a + b, 6 + x = 9$$

Sum - $+$

Difference - $-$

Product - \cdot $(3)(2)$ $4x$

Quotient - \div

Translating Expressions

3 ⁺more than ^{2 · n}twice a number

$$3 + 2x$$

5 ⁻less than [.]the quotient of 6 and ^xa number

$$\frac{6}{x} - 5$$

$$(6 \div x) - 5$$

The product of 4 and the sum of a number and 7

$$4(x+7)$$

Twice the sum of a number and 8

$$2(x+8)$$

the quotient of 5 and the sum of 12 and a number

$$\frac{5}{(12+x)} \quad \text{or} \quad 5 \div (12+x)$$

Evaluating Expressions

Example: Evaluate $m(p-g)^2$ for $m = 3$, $p=7$ and $g = 4$

1. Substitute numbers for variables
2. Use the order of operations to simplify

p
e
m d
a s

$$m(p-g)^2$$

$$3(7-4)^2$$

$$3 \cdot (3)^2$$

$$3 \cdot 9$$

$$\textcircled{27}$$

Solve $2 + 3(x-15)$ when $x = 4$

$$2 + 3(4-15)$$

$$2 + 3(-11)$$

$$2 + -33$$

$$\textcircled{-31}$$

Solve $3x^2 + 6y$ when $x = 4$ and $y = 5$

$$3(4)^2 + 6(5)$$

$$3 \cdot 16 + 6 \cdot 5$$

$$48 + 30$$

$$\textcircled{78}$$