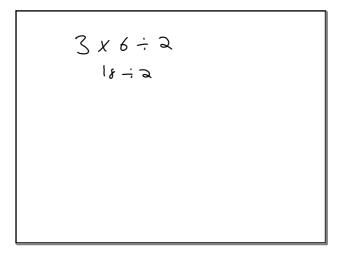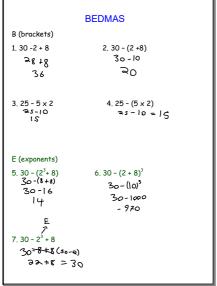## Lesson 1 – *Review*

Order of Operations

Recall that when evaluating expressions with more than one operation there is a specific order to perform the operations (ie. BEDMAS)

1. **B** - Brackets (or parentheses)

2. **E** - Exponents (and roots)

3. **DM** – Division and/or Multiplication (left to right)

4. **AS** – Addition and/or Subtraction (left to right)

Aug 29-4:06 PM

$3 \times 6 \div 2$

$18 \div 2$

Aug 30-1:54 PM

BEDMAS

B (brackets)

1. $30 - 2 + 8$
$28 + 8$
36

2. $30 - (2 + 8)$
$30 - 10$
20

3. $25 - 5 \times 2$
$25 - 10$
15

4. $25 - (5 \times 2)$
$25 - 10 = 15$

E (exponents)

5. $30 - (2^3 + 8)$
$30 - (8 + 8)$
$30 - 16$
14

6. $30 - (2 + 8)^3$
$30 - (10)^3$
$30 - 1000$
-970

7. $30 - 2^3 + 8$
$30 - 8 + 8 \ (so-a)$
$22 + 8 = 30$

Sep 1-12:50 PM

Bedmas

D (division)

8. $6^2 \div 4$
$36 \div 4$
9

9. $(5 + 25) \div 2$
$30 \div 2$
15

M
10. $(5 \times 5) \div 2$
23

11. $5 + 5 \times 2$
$5 + 10$
15

A
12. $6 \times 3 + 2$

13. $6 + 3 \times 2$

S
14. $5 + 6 - 2 + 3$
$11 - (2 + 3)$
$9 + 3$
12

Sep 1-1:07 PM

Cartesian Plane Coordinates

Coordinates : the numbers in an ordered pair that locate a point on a coordinate plane (x, y)

The first number in the pair is always the x-value (called the abcissa). The second number is always the y-value (called the ordinate).

Ex. Find $P(3,5)$

1. In order to locate a point always start at the origin

2. Locate the x-value (right for a positive number and left for a negative number), in this case right three.

3. From that point, locate the y-value (up for positive number and down for a negative number), in this case up five.

Aug 29-4:14 PM

$(-6, 7)$

$(-,+)$ $(+,+)$

$(-3,-3)$ $(-,-)$ $(+,-)$

$(10, 3)$
$(4, 5)$

$(3, -5)$

Aug 30-2:15 PM

Ex. $20 \div 5 \times 6 + (16 - 3) - 3 \times 2^3 + 9$ *Bedmas*

$= 20 \div 5 \times 6 + (16 - 3) - 3 \times 2^3 + 9$ **Brackets**

$= 20 \div 5 \times 6 + 13 - 3 \times 2^3 + 9$ **Exponents**

$= 20 \div 5 \times 6 + 13 - 3 \times 8 + 9$ **Division**

$= 4 \times 6 + 13 - 3 \times 8 + 9$ **Multiplication**

$= 24 + 13 - (3 \times 8) + 9$ **Multiplication**

$= (24 + 13) - 24 + 9$ **Addition**

$= 37 - 24 + 9$ **Subtraction**

$= 13 + 9$ **Addition**

$= 22$

Aug 29-4:12 PM

Ex.   Simplify the following: $7 \times 4 - 3^2 \div 9 \times 2 - (15 - 8)$ *Bedmas*

$= 7 \times 4 - 3^2 \div 9 \times 2 - (15 - 8)$

$= 7 \times 4 - 3^2 \div 9 \times 2 - 7$

$= 7 \times 4 - 9 \div 9 \times 2 - 7$

$= 28 - 2 - 7$

$= 19$

Aug 29-4:08 PM