

1.4 Order Of Operations - Day 2

P - Parentheses

G - Grouping

E - Exponents

E - Exponents

M - Multiplication

M - multiplication or division (L to R)

D - Division

Either order
working L to R

S - Subtraction or addition (L to R)

A - Addition

Either order
working L to R

S - Subtraction

Exponents includes: Exponents and Square roots (radicals)

* Square Root: what number times itself is the given number

$$\sqrt{9} = 3$$

$$\sqrt{36} = 6$$

$$\sqrt{16} = 4$$

On the graphing calculator: $\boxed{\text{2nd}} \boxed{x^2}$
 $\sqrt{(9)}$

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Practice:

1. $3^2 - 4(2)$

PÉMBAS

$$9 - 4(2)$$

$$9 - 8$$

$$1$$

3. $15 - \sqrt{16} + 3(4)$

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

$$15 - 4 + 12$$

$$11 + 12$$

$$23$$

5. $\sqrt{100} + 7^2 - 4(5)$

$$10 + 7^2 - 4(5)$$

$$10 + 49 - 4(5)$$

$$10 + 49 - 20$$

$$59 - 20$$

$$39$$

2. $(6 + 4(3)) - 2^3$

PÉMBAS

$$(6 + 12) - 2^3$$

$$18 - 2^3$$

$$18 - 8$$

$$10$$

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

PÉMBAS

$$6 + 3(4)$$

$$6 + 12$$

$$18$$

6. $3(4) - 2(3) + (10^2 - 25)$

$$3(4) - 2(3) + (100 - 25)$$

$$3(4) - 2(3) + 75$$

$$12 - 2(3) + 75$$

$$12 - 6 + 75$$

$$6 + 75$$

$$81$$

HOMEWORK

Worksheet HW 1.4 Order of Operations - Day 2

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