Do Now:

1. 16 x 11 = 176
2. 18 ÷ 3 = 6
3. 119 ÷ 7 = 17
4. 15.3 - 6.7 = 8.6

Sep 10-9:58 AM

1.2 Order of Operations

7.NS.1

- SWBAT evaluate numeric expressions and explain why order of operations is important.

Calculators: No

Sep 11-10:31 AM

numerical expression- consists of numbers and operations

evaluate- to find the value of the numerical expression

order of operations- set of rules used solve a numerical expression

Sep 10-9:40 AM

P E M D A S

P - parenthesis
E - exponents
M - multiply
D - divide
A - add
S - subtract

Sep 10-9:50 AM

Order of Operations

1. Evaluate any expressions with parenthesis or exponents.
2. Multiply and divide from left to right.
3. Add and subtract from left to right.

Sep 10-9:53 AM

Evaluate the expressions:

a. 7 + 16 x 3 ÷ 6

7 + 48 ÷ 6

7 + 8

15

P E M D A S

P - parenthesis
E - exponents
M - multiply
D - division
A - add
S - subtract

16
x 3
48

Sep 10-9:43 AM

b. $(14 + 6) \times 8$

20×8

160

Sep 10-10:04 AM

c. $\frac{9 \times 8}{4 + 8} = \frac{72}{12} = 6$

$12\overline{)72}$, -72, 0

Sep 10-10:04 AM

d. $54 - 9 + 56 \div 8 \times 6$

$54 - 9 + 7 \times 6$

$54 - 9 + 42$

$45 + 42$

87

Sep 10-10:04 AM

At your desks, evaluate the following expressions:

a. $14 + 6 \div 2$ 17

b. $20 - 7 \times 2 + 1$ 7

c. $3 \times [(11 - 1) \div 5]$ $3 \times ((11-1) \div 5)$ 6

d. $89 - 9 + 36 \div 3 \times 2$ 104

Sep 10-10:05 AM

Real World: You and four friends visit an aquarium, but only three of you go to the movie at the aquarium. What is the total cost of the visit?

5 total people

Admission:	$12.50
Sea Lion Show:	Free
Movie:	$8.00

$5(12.50) + 3(8.00)$

$62.50 + 24.00$

$86.50

Sep 10-9:37 AM

1.4 Powers and Exponents

7.NS.1

- SWBAT evaluate expressions with powers.

Calculators: No

Sep 11-11:55 AM

A **power** is a product with a repeated factor.

The **exponent** tells how many times the **base** is used as a factor.

$base^{exponent}$

Sep 10-10:09 AM

Reading Powers

Power	Repeated Multiplication	In Words
4^2	4×4	squared
9^3	$9 \times 9 \times 9$	cubed
y^5	$y \times y \times y \times y \times y$	to the fifth

Sep 10-10:28 AM

Evaluate the power:

a. $5^3 = 5 \times 5 \times 5 = 125$

b. $2^5 = 2 \times 2 \times 2 \times 2 \times 2 = 32$

c. $3^1 = 3$

d. $6^0 = 1$

e. Write the product 7 x 7 x 7 x 7 x 7 x 7 as a power. 7^6

f. Write the product W x W x W x W as a power. W^4

Sep 10-10:29 AM

Evaluate the expression.

(Solve) (problem)

a. $(6 - 4)^3 + 5 - 3^2$

$2^3 + 5 - 3^2$

$8 + 5 - 3^2$

$8 + 5 - 9$

$13 - 9$

4

Sep 10-10:36 AM

b. $2 \times (7 + 1)^2 \div 4^2$

$2 \times 8^2 \div 4^2$

$2 \times 64 \div 16$

$128 \div 16$

8

Sep 10-10:37 AM

At your desks, evaluate the following expressions:

a. $(5 - 2)^3 - 7 + 4^3$

b. $12 + (4 + 2)^2 - 2^4$

c. $7^3 + 24 \div (7 - 6)^4$

Sep 10-10:13 AM

"Perfect practice makes perfect."

Working individually or with a partner, complete the worksheet.

Sep 10-3:17 PM

Exit Pass 1.4

Evaluate the expression when f = 7.

$(f - 2)^3 + 8$

Sep 10-11:24 AM

Reflection of Today's Lesson

1.2 Order of Operations
7.NS.1
SWBAT evaluate numeric expressions and explain why order of operations is important.

1.4 Powers and Exponents
7.NS.1
SWBAT evaluate expressions with powers.

Sep 14-8:16 AM

Homework

Textbook

pg. 12 #1-9 all

pg. 22 #11-29 odd

Sep 10-10:40 AM