

Good Morning!

Remember that this is SILENT study hall. Ideas for what you can do:

- **read**
- *study*
- organize your binder
- work on homework

Sep 9-4:14 PM

Warm up **9.10.2015**

1. $72 \div 9 + 7$
2. $48 \div (4 + 4)$
3. $40 \div 4 - (5 - 3)$
4. $9 + 9 + 6 - 5$
5. $(5 + 16) \div 7 - 2$

Sep 10-7:38 AM

Mental Math This section provides an opportunity for sharpening students' mental computation.

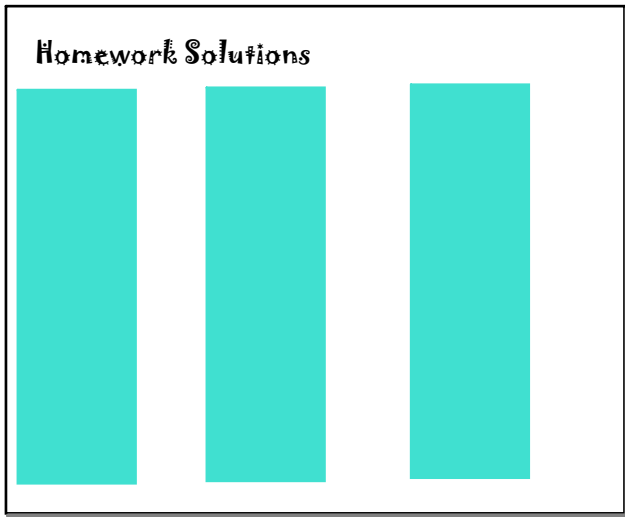
1. $(27 + 4) - (8 \times 3)$
2. $2^4 + 3^3$
3. $25 \times 10 \times \frac{1}{25}$
4. $\frac{\sqrt{4}}{\sqrt{81}}$
5. -100×-1
6. $\frac{3}{5} - \frac{3}{10}$
7. $15 \times 2 - 45$
8. $-4(2)$
9. $5 \text{ cm} = \underline{\quad} \text{ m}$
10. Estimate: What percent of 51 is 32?

Mental Math

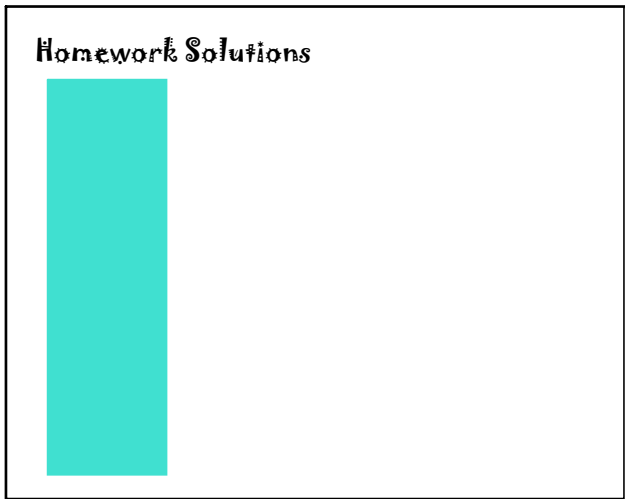
1. 7
2. 25
3. 10
4. $\frac{2}{9}$
5. 100
6. $\frac{3}{10}$
7. -15
8. -8
9. 0.05
10. 60%

NO CALCULATOR!!

Jan 2-12:34 PM



Sep 9-4:07 PM



Sep 9-4:07 PM

Accentuate the Negative
Investigation 4.1

BIG IDEA: Order of Operations

Feb 5-3:17 PM

Work with your group to come up with the biggest answer using the following numbers ONLY....

Sep 21-9:28 PM

Keep them in the same order!

-6 8 3 -10

Sep 22-7:25 AM

Keep them in the same order!

5 -8 2 -20

Sep 22-7:25 AM

Keep them in the same order!

-4 -7 -6 -7

Sep 22-7:25 AM

Keep them in the same order!

8 0 12 -3

Sep 22-7:25 AM

Investigation 4

Properties of Operations

When you learn new types of numbers, you want to know what properties apply to them. You know that rational numbers are commutative for addition and multiplication.

$-\frac{2}{3} + \frac{1}{6} = \frac{1}{6} + (-\frac{2}{3})$ and $-\frac{2}{3} \times \frac{1}{6} = \frac{1}{6} \times (-\frac{2}{3})$

In this investigation, you will study another important property of rational numbers. You will also learn a mathematical rule that tells you the order in which to do arithmetic operations.

Feb 5-3:18 PM

4.1 Order of Operations

Mathematicians have established rules called the **order of operations** in which to perform operations (+, -, ×, ÷). Why do you need such rules?



Feb 5-3:19 PM

Please
Excuse
My **D**ear
Aunt **S**ally

Feb 11-8:00 AM

$$8 - 1 - (18 - 2) \div 8$$



Sep 10-7:03 AM

$30 + 22 \div 11 - 7 - 3^2$

Sep 10-7:03 AM

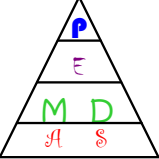
$8 \times \frac{15}{5} - (5 + 9)$

Sep 10-7:03 AM

$5 \cdot 3 - (-3)^3$

Sep 10-7:11 AM

$(-2)^3 - (-5)$



Sep 10-7:11 AM

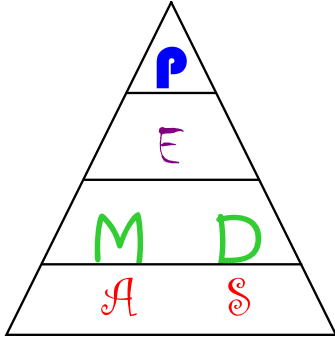
1. $3(4 - 7) - (-6)$

2. $7 \cdot 2 - 5 \cdot 3$

3. $10 \div 5 - (-2)^2$

Sep 10-7:11 AM

Right side page 6 in ISN



Sep 9-6:12 PM

Getting Ready for Problem 4.1

The rugby club orders 20 new jerseys. The manufacturer charges a \$100 setup fee and \$15 per shirt. The total cost is represented by the equation, $C = 100 + 15n$, where C is the cost in dollars and n is the number of jerseys ordered. Pedro and David calculate the amount the club owes.



Pedro's calculation: $C = 100 + 15 \times 20 = 100 + 300 = \400

David's calculation: $C = 100 + 15 \times 20 = 115 \times 20 = \$2,300$

Who did the calculations correctly?

Feb 5-3:19 PM

Handwritten lines for notes.

Order of Operations

- 1. Compute any expressions within parentheses.
 - Example 1: $(-7 - 2) + 1 = -9 + 1 = -8$
 - Example 2: $(1 + 2) \times (-4) = 3 \times (-4) = -12$
- 2. Compute any exponents.
 - Example 1: $-2 + 3^2 = -2 + 9 = 7$
 - Example 2: $6 - (-1 + 4)^2 = 6 - (3)^2 = -3$
- 3. Multiply OR divide in order from left to right.
 - Example 1: $1 + 2 \times 4 = 1 + 8 = 9$ (Multiplication first)
 - Example 2: $200 \div 10 \times 2 = 20 \times 2 = 40$ (Division first, Multiplication second)
- 4. Add OR subtract in order from left to right.
 - Example 1: $1 + 2 - 3 \times 4 = 1 + 2 - 12 = 3 - 12 = -9$ (Multiplication first, Addition and subtraction)
 - Example 2: $1 + 2 - 12 = 3 - 12 = -9$ (Addition and subtraction)



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Handwritten lines for notes.

Use the order of operations in Problem 4.1.

Problem 4.1 Order of Operations

A. In a game, the goal is to write a number sentence that gives the greatest possible result using all the numbers on four cards. Jeremy draws the following four cards.



1. Joshua writes $5 - (-6) \times 4 + (-3) = 41$. Sarah says the result should be 26. Who is correct and why?



1st block - A,B,D
2nd/4th - Finish


Feb 5-3:20 PM

Handwritten lines for notes.

Use the order of operations in Problem 4.1.

Problem 4.1 Order of Operations

A. In a game, the goal is to write a number sentence that gives the greatest possible result using all the numbers on four cards. Jeremy draws the following four cards.




2. Wendy starts by writing $-3 - (-6) + 5^4 =$. What is her result?

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Use the order of operations in Problem 4.1.

Problem 4.1 Order of Operations

A. In a game, the goal is to write a number sentence that gives the greatest possible result using all the numbers on four cards. Jeremy draws the following four cards.



3. Insert parentheses into $-3 - (-6) + 5^4$ to give a greater result than in part (2).

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

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B. Find each value.

1. $-7 \times 4 + 8 \div 2$	2. $(3 + 2)^2 \times 6 - 1$
3. $2\frac{2}{5} \times 4\frac{1}{2} - 5^3 + 3$	4. $8 \times (4 - 5)^3 + 3$
5. $-8 \times [4 - (-5 + 3)]$	6. $-16 \div 8 \times 2^3 + (-7)$

B. 1. 2.

3. 4.

5. 6.

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C. Use parentheses, if needed, to make the **greatest and least** possible values.

1. $7 - 2 + 3^2$ [redacted] ()


2. $46 + 2.8 \times 7 - 2$ [redacted]

3. $25 \times (-3.12) + 21.3 \div 3$ [redacted]

4. $5.67 + 35.4 - 178 - 181$ [redacted]

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D. Use the order of operations to solve this problem. Show your work.

$$3 + 4 \times 5 + 2 \times 3 - 7^2 + 6 \div 3 = \square$$


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Summary: Solve each of the following and explain **WHY** they have different answers.

- $2^2 + 7 \cdot (-3) - 5$
- $(2^2 + 7) \cdot (-3) - 5$
- $(2^2 + 7) \cdot (-3 - 5)$

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CMP PG. 69 - 70

#2 (ALL PARTS), 8-16

Sep 21-8:24 PM

2. Find the value of each expression.

a. $(5 - 3) + (-2) \times (-1)$

b. $2 + (-3) \times 4 - (-5)$

c. $4 \times 2 \times (-3) + (-10) \div 5$

d. $-3 \times [2 + (-10)] - 2^2$

e. $(4 - 20) \div 2^2 - 5 \times (-2)$

f. $10 - [50 \div (-2 \times 25) - 7] \times 2^2$

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Find the sum, difference, product, or quotient.

8. $-10 \times (-11) =$

9. $-10 \times 11 =$

10. $10 - 11 =$

11. $-3 \div (-12) =$

12. $3^2 \times 2^2 =$

13. $3^2 \times (-2)^2 =$

14. $-24 \div (-12) =$

15. $\frac{-24}{-12} =$

16. $-48 \div 4^2 =$

Feb 5-3:47 PM

HONORS

1. Finish and turn in "Fraction Attraction"
2. Go to exittix.com and complete assessment
3. Begin "Order of Operations?" worksheet (show all work). You may work with group.
4. Work on AtN pg. 69-70 #2, 8-16

Sep 9-6:20 PM
