

9/14/09

USE INTEGERS IN PROBLEM SOLVING SITUATIONS.

EVALUATE NUMERICAL EXPRESSIONS USING INTEGERS.

Multiply & Divide  
integers:

\* same sign = positive

\* different sign = negative



The stock market began the day at 400 points above the average. An hour after it opened it dropped 50 points. Two hours after the opening bell it had dropped another 375 points. The third hour the market rebounded and went up 150 points. At the close of the day it had fell another 700 points from the third hour.

Write an expression and determine the number points above or below the market was from its' average.

$$400 - 50 - 375 + 150 - 700 = (-575 \text{ points})$$

or

$$400 + (-50) + (-375) + 150 + (-700)$$

Steven subtracts different negative integers from 12.

Show three examples of what Steven does and explain what effect subtracting different negative integers from 12 does.

$$12 - (-14) = 26$$

$$12 - (-3) = 15$$

$$12 - (-5) = 17$$

When you subtract a negative the result will be a greater value.

USE YOUR CALCULATOR TO DETERMINE THE ANSWER. **LOOK FOR A PATTERN.**

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

15

6.  $-2 \cdot 5$

(-10)

7.  $3 \cdot (-5)$

(-15)

8.  $-7 \cdot (-4)$

28

9.  $32 \div (-4)$

(-8)

10.  $-18 \div 3$

(-6)

11.  $-20 \div (-5)$

4

12.  $49 \div (-7)$

(-7)

13.  $-63 \div (-9)$

7

14.  $-50 \div 10$

(-5)

15.  $63 \div (-9)$

(-7)

16.  $-45 \div (-5)$

9

LOOK AT THE PROBLEMS ABOVE THAT HAVE THE SAME SIGN.

*Positive*

DETERMINE WHAT THE ANSWER (WHAT KIND OF INTEGER) IS OF PROBLEMS THAT HAVE THE SAME SIGN.

*Positive*

What will the answer be when the signs of the integers are different?

*Negative*

USE ORDER OF OPERATIONS TO SOLVE EACH EXPRESSION.

49.  $-(-2 + 1)$

51.  $(-1)^5 \cdot (9 + 3)$

$(-1)^5 = 12$

$(-1) = 12$

$(-12)$

(+)  
EXP  
X

53.  $-4 \cdot 14 \cdot (-25)$

X

$(-56) \cdot (-25)$

$1400$   
1

55.  $8 - (6 \div (-2))$

Kelly divided  $(-16)$  by an integer and her result was an integer between  $0$  and  $-4$ .

What integer could have been the divisor?

Kathy divided  $(-27)$  by an integer and her result was an integer between  $0$  and  $9$ .

What integer could have been the divisor?

A teacher assigns 5 points for a correct answer, -2 points for an incorrect answer, and 0 points for leaving the question unanswered. What is the score for a student who had 22 correct answers, 15 incorrect answers, and 7 unanswered questions?

Write an equation and solve.

$$22(5) + 15(-2) + 7(0) = \underline{\underline{80 \text{ pts}}}$$