

9-26-17

Aim: SWBAT apply knowledge of integers to complete contextual word problems.

HW: Worksheets

Quiz tomorrow (add, subtract, multiply, divide)

Test next Tuesday

Do Now: Classwork # 1 - 8

AIM: SWBAT multiply and divide integers.

DO NOW:

DO NOT COMPUTE!! State whether the answer will be POSITIVE, NEGATIVE or ZERO.

Rules for Adding/Subtracting

Same signs - _____

Different signs - _____

1) $(-19)(-10)$ _____
 2) $-27 + 96$ _____

5) $-152 \div 4$ _____
 6) $53 + 9$ _____

9) $\frac{-16}{-4}$ _____
 10) $32 + -12$ _____

13) $15 - 27$ _____
 14) $57 - 42$ _____

17) $-49 \div -7$ _____
 18) $(-4)^{23}$ _____

Rules for Multiplying/Dividing two Integers

Same signs - _____

Different signs - _____

3) $-24 - (-19)$ _____
 4) $-80 + 80$ _____

7) $(14)(7)$ _____
 8) $(0)(9)$ _____

11) $0 - -5$ _____
 12) $-42 - 50$ _____

15) $(29)(-30)(-20)$ _____
 16) $-4 - (-4)$ _____

19) $-7 + 7$ _____
 20) $(-5)^{10}$ _____

CLASSWORK:



Evaluate.

1) $5(-7)$
 -35

2) $-6 \cdot -3$
 18

3) $-4 \cdot 8$
 -32

4) $-91 \div -7$
 13

5) $240 \div -15$
 -16

6) $\frac{-96}{3}$
 -32

7) $(-5)(-3)(7)$
 $(15)(7)$
 105

8) $(7)(4)(-2)(-1)$
 $(28)(2)$
 56

DO NOW:

Tell whether the sum of the two integers is *always*, *sometimes* or *never* positive.

- 1) two negative integers never
- 2) a positive integer and a negative integer sometimes
- 3) two positive integers always
- 4) a positive integer and zero always
- 5) a negative integer and zero never

CLASSWORK:

Read each problem carefully, write a number sentence and solve.

- 1) The temperature one morning in Juneau, Alaska was -12°F . By the afternoon, the temperature had risen 8°F . What was the temperature in the afternoon?

$$-12 + 8 = -4$$

- 2) You withdraw \$400 from your savings account. Then you withdraw \$250 more. How much did you withdraw in total from your savings account?

$$-400 + (-250) = -650 \quad -400 - 250 = -650$$

- 3) A submarine is 250 meters below sea level. The submarine then rises 175 meters. What is the new position of the submarine?

$$-250 + 175 = -75$$

- 4) In Saturday's football game, the Blue team lost 3 yards on one play. They then gained 5 yards on the next. How many yards did they gain in total?

$$-3 + 5 = 2$$

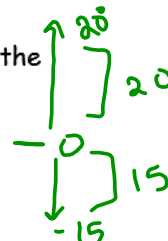
- * 5) You enter an elevator on the eighth floor. The elevator goes up 5 floors and then down 7 floors, where you exit. On what floor did you exit the elevator?

$$8 + 5 - 7 = 6$$

I exited on the 6th floor.

- * 6) The temperature outside was 20°F. The wind chill made it feel like -15°F. Find the difference between the real temperature and the apparent temperature.

$$20 - (-15) = 35$$



- 7) Carly has \$50 in a bank account. She writes a check for \$75 from the account. How much money does Carly have in the account after writing the check?

$$50 - 75 = -25$$

- 8) The highest temperature ever recorded on Earth is 136°F and the lowest temperature recorded is -129°F. What is the range of temperatures on Earth?

$$136 - (-129) = 265$$

$$\begin{array}{r} 136 \\ + 129 \\ \hline 265 \end{array}$$

- 9) The Panthers lost 6 yards on their first play and lost another 8 yards on their next play. What was their net result in yards after these two plays?

$$-6 - 8 = -14$$

- 10) A submarine at -28 feet dives 40 feet. What is the submarine's position after the dive?

$$-28 - 40 = -68$$

Read each word problem carefully, write a number sentence and solve.

- 9) A coin is tossed off a boat into the ocean. The coin's depth changes by -7 inches per second. Determine the depth of the coin 15 seconds after it hits the water.

$$(-7)(15) = -105$$

The depth of the coin is 105 inches.

- 10) You have \$700 in a savings account. Over a 2 month period, you make 10 withdrawals of \$25 each. What is your new balance?

$$(10)(-25) = -250$$

$$700 - 250 = 450$$

My new balance is \$450.

- 11) The temperature fell 36°F in 9 hours. If the temperature fell at the same rate every hour, what is the change in temperature each hour?

$$\frac{-36}{9} = -4$$

The temp. got 4° colder each hour.

- 12) Evan withdrew a total of \$160 from an ATM machine over a 4-day period. If he withdrew the same amount each day, how much money did Evan withdraw each day?

$$\frac{-160}{4} = -40$$

Evan withdrew \$40 each day.

HOMEWORK: Evaluate.

1) $-63 \div 7$

2) $-54 \div -9$

3) $16 \div 2$

4) $-36 \div -6$

5) $-9 \bullet -13$

6) $4 \bullet -23$

7) $-5(-12)$

8) $(-13)(7)$

9) $-3(2)(7)$

10) $-3(4)(-7)$

11) $(-7)(-8)(5)$

12) $(-2)(-4)(-5)$

Read each word problem, write a number sentence and solve.

13) A shoreline is changing -3 cm each year due to erosion. What will the change in the shoreline be in 6 years?

14) The temperature during a 5-day period in Center City were -19°F , -14°F , -8°F , 13°F and 18°F . What was the average temperature for those 5 days?

15) The price of a stock rose \$2 yesterday. If the stock continues to change at the same rate each day, what will be the total change over 10 days?