Algebra 2-5: Products and Powers with Negative Numbers

Warm-Up

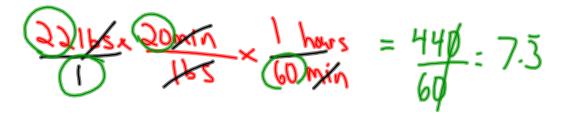
Show your work.

1. There are 10 soda machines in this school. There are 20 ounces of soda in each bottle. Each soda machine can hold 500 bottles when full. If the machines are full, how many ounces of soda will there be in school? $\boxed{00,000}$

2. Let's say we have x soda machines in school instead of 10. How many ounces of soda will there be in school in terms of x? Use the same information from



3. The label on a frozen turkey says "Roast thawed turkey at 325 degrees for 20-minutes per pound." How many hours will it take to roast a 22-pound turkey?



Vocabulary	Definition	Example
Multiplication Property of -1	# 0-1= -#	5*-1=-5
Multiplying #'s with the Same Sign	positive positive = (+) negative. negative = (+)	3.4=12 -34=12
Multiplying #'s with the Opposite Sign	negative - regative=(-)	53=-15
Multiplying negative #'s with an EVEN exponent	(-x) = positive	(-3)= 81
Multiplying negative #'s with an ODD Exponent	$(-x)^{844}$ = negative	(-3) =-243

Example Problems

1.
$$\frac{12}{5} \cdot \frac{20}{13} = \frac{1}{3}$$

1.
$$\frac{12}{5} \cdot \frac{20}{13} = \frac{1}{8}$$
2. $3a(+5)(+2a) = 30a^2$

$$a \cdot 0 = a^2$$

or
$$-40 = \frac{8}{3}$$

Tell if the answer is going to be positive or negative.



wkst 2.5

$$2 - \frac{4}{5} - \frac{5}{4} = \frac{20}{20} = 1$$