

Pre-Algebra

Lesson 1.7

Multiplying and Dividing

Integers

Goal: use rules for multiplying and dividing integers

When multiplying two integers with the same sign, the product will be positive

When multiplying two integers with opposite signs, the product will be negative

Multiplying Integers:

$$5(6) = 30$$

$$-3(11) = -33$$

$$9(-8) = -72$$

$$-5(-12) = 60$$

$$\frac{12}{5} = \frac{60}{25}$$

Because multiplication and division are inverse operations of each other, the rules for dividing integers are similar to those of multiplying. (Just remember that you cannot divide by 0).

$$\frac{0}{4} = 0 \quad \frac{4}{0} = \emptyset$$

Simplify:

$$9(-11) = -99$$

$$0(-100) = 0$$

$$-24 \div (-6) = 4$$

$$0 \div 15 = 0$$

$$15 \div 0 \\ \emptyset \\ \text{No Sol.}$$

Herbie recorded turtles at the following depths, in feet, while he was snorkeling in Kauai. Find the mean of the depths.

-10, -15, -12, -20, -8

Will it be positive or negative?

$$\begin{array}{l}
 -2(4)(-3) \quad + \quad 2(\text{neg}) \rightarrow + \\
 \quad \downarrow \quad (-) \quad - \quad 4(\text{neg}) \rightarrow - \\
 \quad \quad \quad (-) \quad + \quad 4(\text{neg}) \rightarrow + \\
 -5(-10)(-2) \quad - \quad (-) \quad -5(\text{neg}) \rightarrow -
 \end{array}$$

$$(-) \cdot (-) \cdot (-) \cdot (-) + (-) \cdot (-)$$

Simplify.

Hwk: pg. 44-46

#2, 6, 7, 12-28(4th),

30-34 evens, 35-42 all