

Multiplying & Dividing Signed Numbers Class Work

★ Let's Develop Some Division Rules!

<p>There are eight dog treats and eight dogs. If the treats are to be shared equally among the dogs, how many treats will each dog receive?</p>	<p>There are zero dog treats and eleven dogs. If the treats are to be shared equally among the dogs, how many treats will each dog receive?</p>	<p>There are ten dog treats and zero dogs. What happens to the dog treats?</p>
<p>In a class action lawsuit, \$10,000 is to be divided evenly among 10,000 people. How much money will each person receive?</p>	<p>There are zero dollars to be divided evenly between 258 people. How much money will each person receive?</p>	<p>There are \$100 and zero people. What happens to the money?</p>
<p>In general, a number divided by itself is always</p>	<p>In general, zero divided by any nonzero number is always</p>	<p>In general, a number divided by zero is always</p>

★ Let's Develop Some More Rules!

<p>You owe \$3.00 to each of five people. Represent this situation as a numerical expression using multiplication or division, and simplify to represent the total amount you owe as a real number.</p>	<p>The temperature drops a total of 60 degrees (steadily) over the course of three hours. Represent this situation as a numerical expression using multiplication or division, and simplify to represent the amount of temperature change per hour.</p>	<p>You lost \$5.00 somewhere. A magic genie (an imaginary one of course) says to you: I will undo your misfortune 10 times! Represent this situation as a numerical expression using multiplication or division, and simplify to represent the amount of money you will have as an integer.</p>
<p>In general, a negative number times a positive number is always</p>	<p>In general, a negative number divided by a positive number is always</p>	<p>In general, a negative number multiplied by a negative number is always</p>

Multiplying & Dividing Signed Numbers Rules

★ positive * positive = _____

ex.

★ positive * negative = _____

ex.

★ negative * positive = _____

ex.

★ negative * negative = _____

ex.

★ positive ÷ positive = _____

ex.

★ positive ÷ negative = _____


ex.

★ negative ÷ positive = _____

ex.

★ negative ÷ negative = _____

ex.

 **Practice:** Simplify each expression in #1-6, and complete each exercise in #7-9.

1. $4n$ if $n = -10$

2. $-2 * 7 * -1$

3. $40/c$ if $c = -8$

4. $7b * 2d$ if $b = -6$ & $d = -1$
1 and $t = -3$

5. $10 * -10 / -2$

6. $-2s * -3t * d$

$2 * -1$ if $s =$

7. The temperature dropped steadily over the course of five hours. The total drop was 35 degrees. Write and simplify a numerical expression to determine the final temperature at the end of the five-hour period.

8. The Broncos lost five yards on three consecutive plays! Write and simplify a numerical expression to determine their net yardage gain/loss.

9. A certain fish is swimming 20 feet below sea level. A shark is swimming six times as deep as the fish. Write and simplify a numerical expression to determine the location of the shark compared to sea level as an integer.

3-2-1 Exit!

☞ **Three** problems I can solve are...

★ $13 * -2 =$

★ $44/0 =$

★ $-2 * -3 * -4 =$

☞ **Two** things I learned today are...

★

★

☞ **One** question about signed integer operations I still have is...

★

(If you do not have any questions, create a problem that could be solved using any of the concepts you worked with today.)