Algebra 2 zero

Name:

Unit 1 // Lesson 1

Date: Period: 1 2 3 4 5 6

Standards: 25.0 Holt: 1.2 + 1.4

Objective:

Warm Up

Evaluate: $4x + 8y - 6z$ for $x = 2$, $y = -3$ and $z = 6$

Property	Words	Numbers	Algebra
Additive Identity [0]	The sum of a number and 0, the additive identity is the original number		
Multiplicative Identity [1]	The product of a number and 1, the multiplicative identity, is the original number		
Additive Inverse	The sum of a number and its opposite, or additive inverse, is 0		
Multiplicative Inverse	The product of a nonzero number and its reciprocal, or multiplicative inverse, is 1		

Example 1

Q1: What is the additive inverse of -9 ?

Q2: What is the multiplicative inverse of -9 ?

Q3: What is the additive inverse of 3 ?

Q4: What is the multiplicative inverse of $1/3$?

Property	Words	Numbers	Algebra
Commutative	You can add or multiply real numbers in any order without changing the result		
Associative	The sum or product of three or more real numbers is the same regardless of the way the numbers are grouped.		
Distributive	When you multiply a sum by a number, the result is the same whether you add then multiply or whether you multiply each term by the number and then add the products		

Example 2

Q5: Which property? **(A + 8)5 = 5A + 40**

Q6: Which property? **(7 + J) + (-9) = 7 + (J - 9)**

What is a **reciprocal**?

Q7: **-8**

Q8: **7 / 3**

Q9: **-2 / 9**

What is an **opposite reciprocal**?

Q10: **-8**

Q11: **7 / 3**

Q12: **- 2 / 9**

Common Vocabulary:

Addition: Subtraction: Multiplication Division

Order of Operations [1.4]

Q: How can you remember them?

Examples and Practice

Example 1: Evaluate:

Example 2: Evaluate:

Exercise 1: Evaluate:
$-a + 5az - 4z$ for $a=-2$ and $z= 1$

Exercise 2: Evaluate:
$-4x^3 + 2g^2 - 3x^2$ for $x= -1$ and $g=3$

Example 3: Simplify:

Example 4: Simplify:

Exercise 3: Simplify:
$4x^3 + 7x^2 + 8x^4 - 7x^4$

Exercise 4: Simplify:
$2x(4x—5xy) + 7xy—6x^2$