

Name: _____



Date: _____

Notes

Algebra Section 2.4

Pages 88-93

Goal: "Multiply real numbers"



Multiplication:

Think socks!



If your socks don't match, that's a negative!
If your socks match, that's a positive!

Negative X Negative=Positive



Negative X Positive=Negative



Positive X Negative=Negative



Ex: $-12(-10) =$

Ex: $5(-8) =$

Try These: Use highlighters to make your socks.

Ex: $-3(6)$

Ex: $(-4)(-3)$

Ex: $4(-3)$

Ex: $-2(-7)$

Ex: $-0.5(-4)$

Ex: $(-3)(7)$

Example:

$2(-4)(-6)$	*Multiply $2(-4)$ first (socks don't match)
$-8(-6)$	* Multiply your outcome and (-6) (socks match)
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Try These: Multiply the first two factors, then multiply that product and the third.

Ex: $-3(6)(-5)$

Ex: $2(-4)(-3)$

Ex: $4(-3)(5)$

Ex: $-2(-7)(-3)$

Ex: $-0.5(-4)(3)$

Ex: $2(-3)(-1)$

Properties:

Commutative Property: The _____ in which you multiply two numbers does not change the product.

Example: $a \cdot b = b \cdot a$ and $6 \cdot 3 = 3 \cdot 6$

Associative Property: The way you _____ three numbers in a product does not change the product.

Example: $(a \cdot b) \cdot c = a \cdot (b \cdot c)$ and $(5 \cdot 6) \cdot 2 = 5 \cdot (6 \cdot 2)$

Identity Property: The _____ of a number and _____ is that number.

Example: $a \cdot 1 = a$ and $(-5) \cdot 1 = -5$

Property of Zero: The _____ of a number and _____ is _____.

Example: $a \cdot 0 = 0$ and $(7) \cdot 0 = 0$

Property of -1: The _____ of a number and -1 is the _____ of the number.

Example: $a \cdot (-1) = -a$ and $(-4) \cdot (-1) = 4$

Try These:

Identify the property illustrated.

Ex: $-1 \cdot 8 = -8$

Ex: $12 \cdot x = x \cdot 12$

Ex: $(y \cdot 4) \cdot 9 = y \cdot (4 \cdot 9)$

Ex: $0 \cdot (-41) = 0$

Ex: $-5 \cdot (-6) = -6 \cdot (-5)$

Ex: $-13 \cdot (-1) = 13$

Word Problems:

Ex: The table gives the daily minimum temperatures (in degrees Fahrenheit) in Barrow, Alaska, for the first five days of February 2004. Find the mean daily minimum temperature.

Day in Feb.	1	2	3	4	5
Min. Temp.	-21	-29	-39	-39	-22