

8th Grade Lesson 81

- I can multiply and divide signed numbers.

$2(3)$
 $3 + 3$
 6

$2(-3)$
 $(-3) + (-3)$
 -6

$2(-3) = (-6)$
 $\frac{-6}{2} = (-3)$

$(-2)(-3) = 6$
 $-(-6)$

$(3)(-4)$
 $-4 + -4 + -4$
 -12

$\frac{-6}{-3} = (2)$

RULES FOR MULTIPLICATION & DIVISION OF A PAIR OF SIGNED NUMBERS

1. The answer is a positive number if the signs of the two numbers are alike.
2. The answer is a negative number if the signs of the two numbers are different.

$(4)(2)$

8

$(-4)(-2)$

8

$(-4)(2)$

-8

$(4)(-2)$

-8

$\frac{8}{2}$

4

$\frac{-8}{-2}$

4

$\frac{8}{-2}$

-4

$\frac{-8}{2}$

-4

$$[(-3)(2)] [(-1)(-4)] (-2)(-1)$$

$$[-6](4)(2)$$

$$(-24)(2)$$

$$\textcircled{-48}$$

RULE FOR MULTIPLICATION OF SIGNED NUMBERS

When multiplying signed numbers, the product is positive if there is an even number of negative numbers. If there is an odd number of negative numbers, the product is negative.

$$(-3)(-3)(-2)(4)$$

-72

$$(+3)(-3)(2)(-4)(-1001)(-4)(-1)(-10)$$

positive product

Assignment:

Problem Set 81 #1-6, 11, 12, 15-18,
20-28