

1/16/2020

## Lesson 8: Multiply!

Let's get more practice multiplying signed numbers.

### 8.1: Which One Doesn't Belong: Expressions

Which expression doesn't belong?

$7.9x$

$7.9 + x$

$7.9 \cdot (-10)$

$-79$

### 8.2: Matching Expressions

Match expressions that are equal to each other.

$(-1) \cdot 12 = -12$	$(-64) \cdot \frac{1}{8} = -8$	$1 \cdot 15 = 15$
$(-1) \cdot (-3) \cdot (-5) = 3 \cdot -5 = -15$	$(-1) \cdot (-2) \cdot 6 = 2 \cdot 6 = 12$	$(-1) \cdot (-12) = 12$
$1 \cdot (-3) \cdot (-5) = -3 \cdot -5 = 15$	$(-\frac{1}{4}) \cdot (-32) = 8$	$(-2) \cdot 6 = -12$
$(-\frac{1}{2}) \cdot (-16) = 8$	$(-3) \cdot 5 = -15$	$2 \cdot (-4) = -8$
$(-\frac{1}{2}) \cdot 16 = -8$	$(-1) \cdot (-3) \cdot (-4) = 3 \cdot -4 = -12$	$2 \cdot 4 = 8$
$(-1) \cdot (-3) \cdot 4 = 3 \cdot 4 = 12$	$(-3) \cdot (-5) = 15$	$1 \cdot (-15) = -15$

### 8.3: Row Game: Multiplying Rational Numbers

Evaluate the expressions in one of the columns. Your partner will work on the other column. Check in with your partner after you finish each row. Your answers in each row should be the same. If your answers aren't the same, work together to find the error.

column A	column B
$790 \div 10$ 79	$(7.9) \cdot 10$ 79
$(-\frac{6}{7}) \cdot 7$ -6	$(0.1) \cdot (-60)$ -6
$(2.1) \cdot (-2)$ -4.2	$(-8.4) \cdot \frac{1}{2}$ -4.2
$(2.5) \cdot (-3.25)$ 8.125	$(-\frac{5}{2}) \cdot \frac{13}{4} = -8.125$
$(-10) \cdot (3.2) \cdot (-7.3)$ 233.6	$5 \cdot (-1.6) \cdot (-29.2)$

Handwritten calculations for Column A:  
 $32$   
 $7.3$   
 $2240$   
 $233.6$   
 $2$   
 $3.25$   
 $25$   
 $1625$   
 $6500$   
 $8.125$

$\checkmark$   
 $-32 \cdot -7.3$

Handwritten calculations for Column B:  
 $13$   
 $65$   
 $-65$   
 $8.1825$   
 $8 \overline{) 65.000}$   
 $-64$   
 $10$   
 $-8$   
 $20$   
 $-16$   
 $40$   
 $-40$   
 $0$

Are you ready for more?

A sequence of rational numbers is made by starting with 1, and from then on, each term is one more than the reciprocal of the previous term. Evaluate the first few expressions in the sequence. Can you find any patterns? Find the 10th term in this sequence.

$1$        $1 + \frac{1}{1}$        $1 + \frac{1}{1+1}$        $1 + \frac{1}{1+\frac{1}{1+1}}$        $1 + \frac{1}{1+\frac{1}{1+\frac{1}{1+1}}}$       ...

$-10 \cdot 3.2$   
 $\checkmark$

*Brain*