

## Steps

# Multiplying with Rational Numbers

1. Make mixed numbers into improper fractions.
2. Multiply Straight Across (Cross-Cancel if possible)
3. Simplify
4. CHECK YOUR SIGN!

$$-4\frac{2}{3} \times \frac{1}{2} = \frac{14}{3} \times \frac{1}{2} = \frac{7}{3} = 2\frac{1}{3}$$

*(Handwritten notes: 4x3+2, 14/3, 7/3, 2 1/3 circled)*

$\frac{4}{9} \times \left(-\frac{6}{7}\right)$	$-\frac{3}{4} \cdot \left(-\frac{10}{9}\right)$	$\frac{3}{2} \left(-2\frac{2}{9}\right)$	$\left(-1\frac{3}{8}\right)^2$
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There are 15 people in a room. Each person ate  $\frac{2}{3}$  of a pizza. There was no pizza remaining. How many pizzas were in the room?

## Steps

# Dividing with Rational Numbers

1. Make mixed numbers into improper fractions.
2. Multiply by the reciprocal!!
3. Follow Multiplication rules...

$$-1\frac{1}{2} \div -\frac{1}{2} = \frac{-3}{2} \times \frac{2}{1} = \frac{3}{1} = 3$$

*(Handwritten notes: 1x2+1, Keep, Change, Flip)*

$-\frac{2}{7} \div \frac{10}{7}$	$-\frac{1}{2} \div \left(-\frac{3}{4}\right)$	$\frac{2}{3} \div (-14)$	$-1\frac{1}{6} \div \frac{5}{3}$
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How many three-quarter pound burgers can be made with twelve pounds of hamburger?



## Multiplying with Rational Numbers

Steps:

- 1.) Multiply as usual, ignoring the decimals.
- 2.) Determine the total number of digits behind the original numbers' decimal points
- 3.) Place the same number of digits behind the decimal point in the product.

$$\begin{array}{r}
 2.35 \\
 \times 7.8 \\
 \hline
 1880 \\
 +1645 \\
 \hline
 18330
 \end{array}$$

So,  $2.35 \times 7.8 = 18.33$

1.) $-2.5 \times -17$	2.) $6.25 \times -8$	3.) $-7.1 \times -2.8$	4.) $-4.8 \times 6.3$
5.) $2.45 \times -3.9$	6.) $12.4 \times 3.5$	7.) $-3.9 \times 1.32$	8.) $-7.5 \times 2(-8.3)$

## Dividing with Rational Numbers

Steps:

- 1.) If the divisor is not a whole number, move the decimal point to the right to make it a whole number.
- 2.) Move the decimal point in the dividend the same number of places.
- 3.) Divide as usual.
- 4.) Bring your decimal point straight up into the solution.

$$\begin{array}{r}
 .5 \overline{) 6.85} \\
 \rightarrow 5 \overline{) 68.5}
 \end{array}$$

no, go for it

$$\begin{array}{r}
 1 \\
 5 \overline{) 68.5} \\
 \underline{-5} \\
 18 \\
 \underline{-15} \\
 35 \\
 \underline{-35} \\
 0
 \end{array}$$

1.) $4.2 \div (-1.2)$	2.) $-51.2 \div (-8)$	3.) $-8.176 \div (-0.56)$	4.) $-27.44 \div 0.98$
5.) $-4.2 \div (-0.3)$	6.) $30.96 \div (-7.2)$	7.) $-3.71 \div (-2.65)$	8.) $-12.6 \div 2.8$