

MULTIPLYING AND DIVIDING RATIONAL NUMBERS

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- All the same processes and rules apply to multiplying and dividing rational numbers (fractions and decimals). Once you have a solution, apply integer rules to determine the sign of the product or quotient.
 - If the signs are the same, then the answer is _____.
 - If the signs are different, then the answer is _____.

Practice applying integer rules to rational numbers by solving the questions below.

1. $4.51 \cdot 3 =$ _____	2. $-2.5(7) =$ _____	3. $-15.6(-2) =$ _____
4. $\frac{-32}{-5} =$ _____	5. $\frac{-20}{3} =$ _____	

Apply your understanding of multiplying and dividing rational numbers below.

6. Using #4 and #5 above, how would you explain to a friend when to stop when simplifying a rational value through long division?	7. The cell phone company charges Michael a late fee of \$3.84 per day until the balance is paid. If Michael is 8 days late, what is the change in Michael's bank account?
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MULTIPLYING FRACTIONS:

1. Change mixed numbers to an improper fraction.
2. Multiply numerators.
3. Multiply denominators.
4. Simplify.
5. Apply integer rules.

$$\frac{7}{8} \cdot 1\frac{1}{2}$$

DIVIDING FRACTIONS:

1. Change mixed numbers to an improper fraction.
2. Change the division to multiplication.
3. Find the reciprocal of the second fraction.
4. Multiply and simplify.
5. Apply integer rules.

$$2\frac{3}{4} \div \frac{2}{3}$$

Practice applying integer rules to rational numbers by solving the questions below.

<p>8.</p> $\frac{3}{5} \left(\frac{2}{3}\right) = \underline{\hspace{2cm}}$	<p>9.</p> $-\frac{5}{6} \left(-\frac{3}{4}\right) = \underline{\hspace{2cm}}$	<p>10.</p> $-\frac{3}{10} \div \left(-\frac{4}{5}\right) = \underline{\hspace{2cm}}$
<p>11.</p> $-\frac{2}{3} \div \frac{1}{2} = \underline{\hspace{2cm}}$	<p>12.</p> $2\frac{1}{2} \left(-\frac{3}{4}\right) = \underline{\hspace{2cm}}$	<p>13.</p> $-\frac{8}{9} \div \left(-\frac{4}{9}\right) = \underline{\hspace{2cm}}$

14. Draw a line connecting the situation to the matching expression and correct solution.

The water level drops 6 inches over $2\frac{1}{2}$ days. By how much did it change each day?

Kasie deposits \$2.50 each day for 6 days. What is the change in Kasie's bank account?

AJ invests in a stock that drops \$2.50 each day for 6 days in a row. What is the change in AJ's investment?

$$2\frac{1}{2} \div -6$$

$$6(2.5)$$

$$-6 \div 2\frac{1}{2}$$

$$6(-2.5)$$

$$-6(-2.5)$$

$$-2\frac{2}{5}$$

$$-15$$

$$2\frac{2}{5}$$

$$15$$

$$-\frac{5}{12}$$

