

Name _____



Round Fractions

OBJECTIVE Use a number line to round fractions.

You can use a number line to round fractions. Plot the point on a number line with the benchmarks 0 , $\frac{1}{2}$, and 1 labeled. Then see which benchmark the point is closest to.

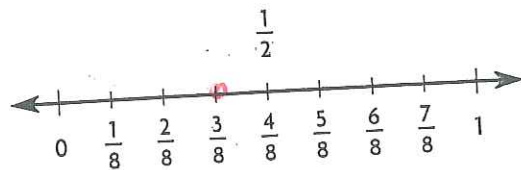
Round $\frac{3}{8}$ to 0 , $\frac{1}{2}$, or 1 .

STEP 1

Use a number line.

STEP 2

Draw a point on the number line at the $\frac{3}{8}$ mark.



STEP 3

Locate 0 , $\frac{1}{2}$ and 1 on the number line. Compare the distance between $\frac{3}{8}$ and 0 , $\frac{1}{2}$, and 1 .

Round $\frac{3}{8}$ to the closest number.

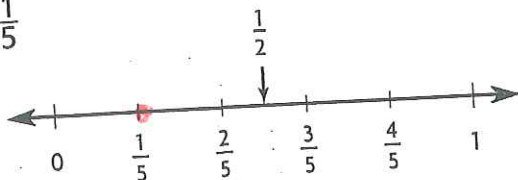
$\frac{3}{8}$ is closer to $\frac{1}{2}$ on the number line.

So, $\frac{3}{8}$ rounds to $\frac{1}{2}$.

Try This!

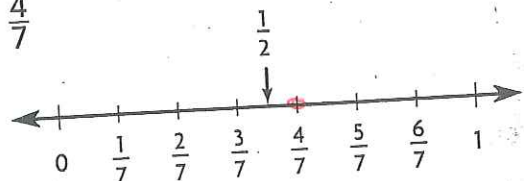
Use a number line. Round the fraction to 0 , $\frac{1}{2}$ or 1 .

1. $\frac{1}{5}$



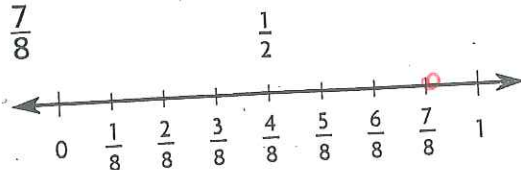
$\frac{1}{5}$ rounds to 0 .

2. $\frac{4}{7}$



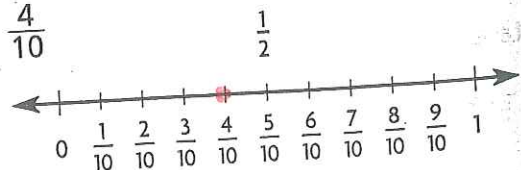
$\frac{4}{7}$ rounds to $\frac{1}{2}$.

3. $\frac{7}{8}$

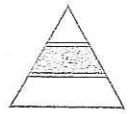


$\frac{7}{8}$ rounds to 1 .

4. $\frac{4}{10}$



$\frac{4}{10}$ rounds to $\frac{1}{2}$.



Connect Fractions to Division

OBJECTIVE Make connections between fractions and the process of division.

A fraction represents equal parts of a whole or group. The quotient of division shows a whole or group divided into a number of equal parts. Therefore, fractions are related to division. You can write a fraction as a division expression.

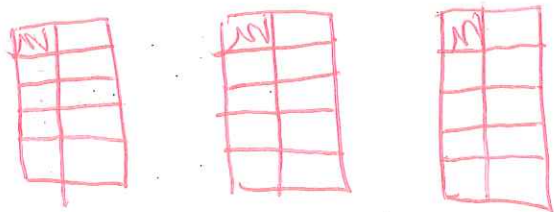
Divide $3 \div 10$. Show the quotient as a fraction.

STEP 1

Draw 3 rectangles to represent the 3 in the division expression.

Then divide each rectangle into tenths to represent the 10.

Draw lines to divide each whole.



STEP 2

Shade one tenth in each rectangle. Write how many tenths.

There are 3 rectangles.

STEP 3

Complete the number sentence.

The 3 rectangles are divided into 10 equal parts.

One tenth from each rectangle is 3 tenths.

$$3 \div 10 = \frac{3}{10}$$

Try This!

Show the quotient as a fraction.

1. $1 \div 8$

$$\frac{1}{8}$$

2. $2 \div 11$

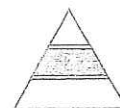
$$\frac{2}{11}$$

3. $4 \div 5$

$$\frac{4}{5}$$

4. $7 \div 3$

$$2\frac{1}{3}$$



Subtract Decimals

OBJECTIVE Use place value to subtract decimals to hundredths.

You can use a place-value chart to help you subtract decimals. Subtracting decimals is similar to subtracting whole numbers. Decimals can be subtracted place-by-place starting with the least place.

Find $12.65 - 4.32$.

STEP 1

Estimate. Round each decimal to the nearest whole number and subtract.

$$12.65 - 4.32$$

Estimate: $\downarrow \quad \downarrow$
 $13 - 4 = 8$

STEP 2

Line up the place values for each number in a place-value chart. Subtract the hundredths first. Subtract the tenths next.

	Tens	Ones	Tenths	Hundredths
12.65	1	2	6	5
$- 4.32$		4	3	2
		8	3	3

Regroup as needed. Then subtract the ones.

$$12.65 - 4.32 = 8.33$$

Use your estimate to see if your answer is reasonable.

$$8.33 \text{ is close to the estimate } 8.$$

Use addition to check your answer.

The answer is reasonable.

$$8.33 + 4.32 = 12.65$$

Try This!

Estimate. Then find the difference.

1. $4.82 - 2.14$

Estimate: $5 - 2 = 3$

$$\begin{array}{r} 4.82 \\ - 2.14 \\ \hline \end{array}$$

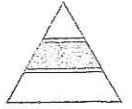
2.68

2. $15.82 - 1.22$

Estimate: $16 - 1 = 15$

$$\begin{array}{r} 15.82 \\ - 1.22 \\ \hline \end{array}$$

14.60



Algebra • Multiplication Patterns with Decimals

OBJECTIVE Use a pattern to multiply a decimal by 10, 100 or 1,000.

You can use the same pattern to multiply a decimal by 10, 100, or 1,000.

Use a pattern to multiply tenths, hundredths and ones and tenths.

A

Multiply tenths.

Multiply by 10. The decimal point moves 1 place to the right.

Multiply by 100. The decimal point moves 2 places to the right.

Multiply by 1,000. The decimal point moves 3 places to the right.

$$10 \times 0.5 = \underline{5.0}$$

$$100 \times 0.5 = \underline{50.0}$$

$$1,000 \times 0.500 = \underline{500.0}$$

B

Use the pattern to multiply hundredths. Write the product.

$$10 \times 0.02 = \underline{2.0}$$

$$100 \times 0.02 = \underline{20.0}$$

$$1,000 \times 0.02 = \underline{200.0}$$

C

Multiply ones and tenths. Move the decimal point to the right the same number of places as zeros in the factor. Write the product.

$$10 \times 1.6 = \underline{16.0}$$

$$100 \times 1.6 = \underline{160.0}$$

$$1,000 \times 1.6 = \underline{1600.0}$$

Try This!

Find the product.

$$1. \quad 10 \times 0.6 = \underline{6.0}$$

$$100 \times 0.6 = \underline{60.0}$$

$$1,000 \times 0.6 = \underline{600.0}$$

$$3. \quad 10 \times 2.1 = \underline{21.0}$$

$$100 \times 2.1 = \underline{210.0}$$

$$1,000 \times 2.1 = \underline{2100.0}$$

$$2. \quad 10 \times 0.08 = \underline{0.80}$$

$$100 \times 0.08 = \underline{8.00}$$

$$1,000 \times 0.08 = \underline{80.00}$$

$$4. \quad 10 \times 5.07 = \underline{50.70}$$

$$100 \times 5.07 = \underline{507.00}$$

$$1,000 \times 5.07 = \underline{5070.00}$$