

Writing Fractions as Decimals

MAIN IDEA

- Write fractions as decimals.

EXAMPLES Write Fractions as Decimals

Write each fraction as a decimal.

1 $\frac{7}{10}$

Since the denominator is 10, write $\frac{7}{10}$ as a decimal.

$$\frac{7}{10} = \boxed{}$$

Read 0.7 as *seven tenths*.

2 $\frac{1}{4}$

Since 4 is a factor of 100, write an equivalent fraction with a denominator of 100.

$$\frac{1}{4} = \boxed{}$$

Since $4 \times 25 = 100$, multiply the numerator and denominator by 25.

$$= \boxed{}$$

Read 0.25 as *twenty-five hundredths*.

3 $\frac{3}{8}$

METHOD 1 Use paper and pencil.

Place the decimal point directly above the decimal point after 3.

$$\begin{array}{r} \frac{3}{8} \rightarrow 8 \overline{) 3.000} \\ \underline{- 24} \\ 60 \\ \underline{- 56} \\ 40 \\ \underline{- 40} \\ 0 \end{array}$$

To divide 3 by 8, place a decimal point after 3 and annex as many zeros as necessary to complete the division.

METHOD 2 Use a calculator.

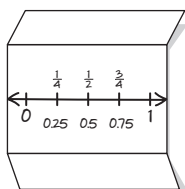
$$3 \div 8 \text{ ENTER } 0.375$$

Therefore, $\frac{3}{8} = \boxed{}$

FOLDABLES

ORGANIZE IT

Summarize the process for writing a fraction as a decimal under the Fractions tab of your Foldable.



Check Your Progress

Write each fraction as a decimal.

a. $\frac{3}{10}$

b. $\frac{9}{20}$

c. $\frac{5}{8}$

EXAMPLE**Mixed Numbers as Decimals**

- 4 BEVERAGES** At a meeting, people drank 25 bottles of water. The water came in packs of 8. This makes $3\frac{1}{8}$ eight-packs. Write this number as a decimal.

$$3\frac{1}{8} = \boxed{} + \boxed{}$$

Definition of a mixed number.

$$= 3 + 1 \div 8 \text{ ENTER}$$

Use a calculator to write $\frac{1}{8}$ as a decimal.

$$= \boxed{} + \boxed{} \text{ or } \boxed{}$$

Read 3.125 as *three and one hundred twenty-five thousandths*.

People at the meeting drank $\boxed{}$ eight-packs of bottled water.

Check Use a calculator. $3 \text{ + } 1 \div 8 \text{ ENTER } 3.125 \checkmark$

HOMEWORK ASSIGNMENT

Page(s):

Exercises:

Check Your Progress

PAPER Lilly's school used $5\frac{4}{25}$ boxes of paper copying newsletters to be distributed to each student in the school. Write this number as a decimal.