3.10 Expressing Decimals as Fractions

GOAL

Write decimals as fractions.

1. Write each decimal as a fraction.

a)
$$0.2 =$$
 _____ d) $0.\overline{6} =$ _____

b)
$$0.375 =$$
 e) $0.\overline{15} =$

c)
$$0.432 =$$
_____ f) $0.\overline{146} =$ _____

f)
$$0.\overline{146} =$$

2. Draw lines to match each fraction with its decimal equivalent.

a)
$$\frac{6}{10}$$

b)
$$\frac{7}{9}$$

c)
$$\frac{1}{6}$$

d)
$$\frac{71}{100}$$

e)
$$\frac{3}{8}$$

f)
$$\frac{14}{99}$$

3. Order each set of numbers from least to greatest.

a)
$$0.23, \frac{1}{7}, 0.\overline{7}$$

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b) $\frac{7}{13}, 0.\overline{6}, \frac{1}{3}$

c)
$$0.\overline{3}, \frac{2}{9}, \frac{1}{2}$$

4. Place <, >, or = to make each number sentence true.

a)
$$0.\overline{3} - \frac{1}{4}$$

b)
$$\frac{1}{2}$$
 _____ 0.4545

a)
$$0.\overline{3}$$
 _____ $\frac{1}{4}$ b) $\frac{1}{2}$ _____ 0.4545 c) $\frac{2}{21}$ _____ 0.22 d) $0.\overline{6}$ _____ $\frac{1}{3}$

d)
$$0.\overline{6} - \frac{1}{3}$$

At-Home | Help

You can write a repeating decimal using a horizontal bar.

For example, 0.424242... can be written as 0.42. To write a repeating decimal as a fraction, write the repeating digit(s) as a whole number over 9, 99, or 999.

For example,
$$0.\overline{5} = \frac{5}{9}$$
, $0.\overline{12} = \frac{12}{99}$,

and
$$0.\overline{134} = \frac{134}{999}$$
.

After writing a decimal as a fraction, you can rewrite the fraction in lowest terms.

For example,
$$\frac{125}{1000} = \frac{1}{8}$$
.

Change each decimal to a fraction or mixed number.

$$^{2.}$$
 .018 =

$$^{5.}$$
 .45 =

$$^{6.}$$
 .16 =

$$^{10.}$$
 4.05 =

$$^{12.}$$
 6.25 =

$$^{14.}.12 =$$

$$^{16.}$$
 3.25 =