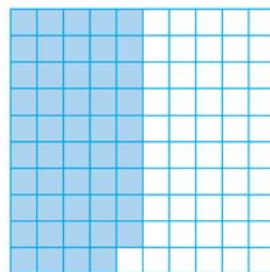


Fractions, Decimals, and Percents



A **percent** is a fraction whose denominator is 100. The symbol for percent is %. In the model at the right, there are 100 squares in all, and 49 of the 100 squares are shaded. You can write the shaded part of the model as a fraction, a decimal, or a percent.



Fraction: forty-nine out of one hundred, or $\frac{49}{100}$

Decimal: forty-nine hundredths, or 0.49

Percent: forty-nine percent, or 49%

EXAMPLE

Write the fraction as a decimal: a. $\frac{1}{8}$ b. $\frac{5}{12}$

a. $\frac{0.125}{1 \overline{)8.000}}$ **Divide.**

▶ $\frac{1}{8} = 0.125$

b. $\frac{0.41666...}{12 \overline{)5.00000...}}$ **Divide.**

▶ $\frac{5}{12} = 0.41666... = 0.41\bar{6}$

EXAMPLE

Write the decimal as a fraction: a. 0.7 b. 0.32

a. 0.7 = seven tenths
 $= \frac{7}{10}$

b. 0.32 = thirty-two hundredths
 $= \frac{32}{100}$
 $= \frac{8}{25}$

To write a percent as a decimal, move the decimal point two places to the left and remove the percent sign.

EXAMPLE

Write the percent as a decimal: a. 16% b. 5%

a. 16% = $\overset{\curvearrowright}{16}\%$
 $= 0.16$

b. 5% = $\overset{\curvearrowright}{05}\%$
 $= 0.05$

To write a decimal as a percent, move the decimal point two places to the right and write a percent sign.

EXAMPLE

Write the decimal as a percent: a. 0.83 b. 0.195

a. 0.83 = $\overset{\curvearrowright}{0.83}$
 $= 83\%$

b. 0.195 = $\overset{\curvearrowright}{0.195}$
 $= 19.5\%$