7–1 Percents and Fractions

Main Idea

- Express percents as fractions and fractions as percents.

Build Your Vocabulary (pages 169–170)

A **percent** is a ratio that compares a number to ____.

Key Concept

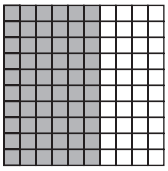
Percent to Fraction To write a percent as a fraction, write the percent as a fraction with a denominator of 100. Then simplify.

Examples Write a Percent as a Fraction

1 **Write 60% as a fraction in simplest form.**

60% means ____ out of ____.

$60\% = \frac{60}{\square}$ Definition of percent.



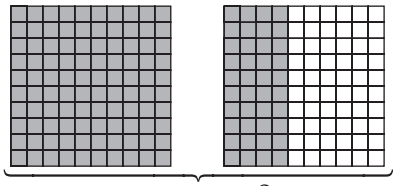
$60\% = \square$

$= \frac{\cancel{60}}{\cancel{100}}$ or $\square$ Simplify. Divide the numerator and denominator by the GCF, ____.

2 **Write 140% as a mixed number in simplest form.**

140% means ____

for every ____.



$140\% = 1\frac{2}{5}$

$140\% = \frac{140}{\square}$ Definition of percent

$= 1\frac{\cancel{40}}{\cancel{100}}$ Write as a mixed number. Divide the numerator and denominator by the GCF, ____.

$= \square$

Check Your Progress **Write each percent as a fraction or mixed number in simplest form.**

a. 30%

b. 180%

EXAMPLE

1 **LUNCH** **Use the table. What fraction of the class members preferred spaghetti for the school lunch?**

School Lunch Choices	
Lunch	**Percent**
pizza	30
spaghetti	25
hamburger	20
chicken strips	15
soup	10

The table shows that ____ of the class members preferred spaghetti.

$$\frac{\square}{100} = \frac{\square}{100} \quad \text{Definition of percent}$$

$$= \square \quad \text{Simplify.}$$

So, ____ of the class members preferred spaghetti for the school lunch.

FOLDABLES

ORGANIZE IT

Include some examples of percents written as fractions and fractions written as percents in your Foldable chart.

Fraction	Percent	Decimal
$\frac{1}{2}$	→ 50% →	0.5

Check Your Progress

ICE CREAM Use the table. What fraction of the students chose chocolate as their favorite flavor?

Students' Favorite Ice Cream Flavor	
Flavor	**Percent**
vanilla	37
chocolate	28
chocolate chip	20
strawberry	8
other	7

EXAMPLES **Write a Fraction as a Percent**

4 **Write $\frac{7}{10}$ as a percent.**

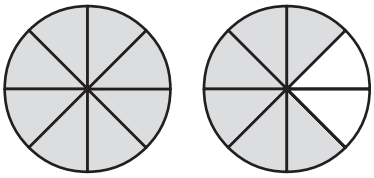
$\frac{7}{10} = \frac{n}{\square}$ Write a proportion.

$\frac{7}{10} = \square$ (×10 above, ×10 below) Since $10 \times 10 = 100$, multiply 7 by 10 to find n.

So, $\frac{7}{10} = \square$ or $\square$.

5 **Write a percent to represent the shaded portion of the model.**

The portion shaded is $1\frac{6}{8}$ or $\square$.



$1\frac{3}{4} = \square$ Write $1\frac{3}{4}$ as an improper fraction.

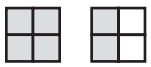
$\frac{7}{4} = \frac{n}{100}$ Write a proportion.

$\frac{7}{4} = \square$ (×25 above, ×25 below) Since $4 \times 25 = 100$, multiply 7 by 25 to find n.

So, $\frac{175}{100}$ or $\square$ of the model is shaded.

Check Your Progress **Write each fraction or shaded portion of each model as a percent.**

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

b. 

HOMEWORK ASSIGNMENT

Page(s):

Exercises: