Objective   Using Estimation and Benchmark Percents

Warm-Up

Compute each product.

1. $\frac{1}{10} \times 350$

2. $\frac{1}{100} \times 350$

3. $\frac{1}{1000} \times 350$

4. $\frac{1}{10000} \times 350$

Putting It All in Perspective

In your opinion, what does each famous quotation or saying really mean?

1. "Genius is one percent inspiration and ninety-nine percent perspiration."
-Thomas Edison

2. "Success is 99 percent failure."
-Soichiro Honda

3. "You miss 100 percent of the shots you never take."
-Wayne Gretzky

4. "Always give 110%. It's the extra 10% that everyone remembers."
-Frank Sonnenberg

Each student group has been given a note card that contains a number expressed as a fraction, decimal, or percent.

In small groups of 6 students each, order the set of numbers from least to greatest.

1. Explain the strategies used by your class to order the numbers.

Noah and Dylan were assigned the numbers $0.0\overline{6}$ and 0.1% but they disagreed on which was larger. Noah says that $0.0\overline{6}$ is less than 0.1, so $0.0\overline{6}$ is less than 0.1%. Dylan says that since 0.1% is the same as as 0.001 and 0.001 is less than $0.0\overline{6}$, 0.1% is less than $0.0\overline{6}$.

2. Who is correct? Explain your reasoning.

3. Order the numbers from least to greatest.

$0.99, \dfrac{1}{9}, \dfrac{17}{20}, 95\%, 25\%, \dfrac{3}{8}, 70\%, 4.3\%, 0.81, 0.64$

Estimating Percents from Pictures

You know that 100% means one, or the whole, and 50% means half.
You can estimate a lot of percents when using a visual model.

A laptop computer uses an icon of a battery on the toolbar to show how much power is left in the battery. When you glance at the icon, you can get a good estimate of how much battery life remains before you need to recharge the battery.
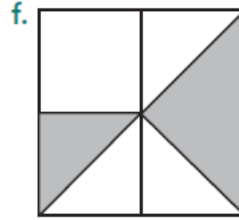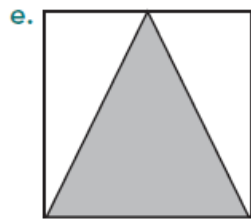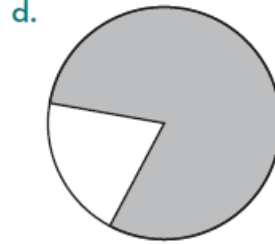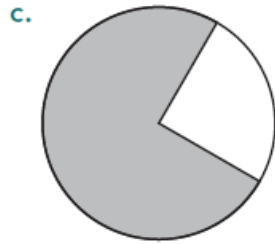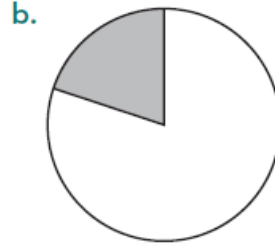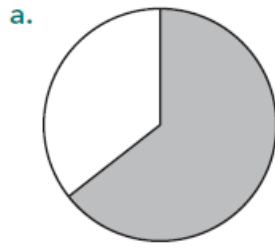
1. Estimate how much battery power remains by writing the percent under each battery icon.

a.   b.   c.

d.   e.   f.
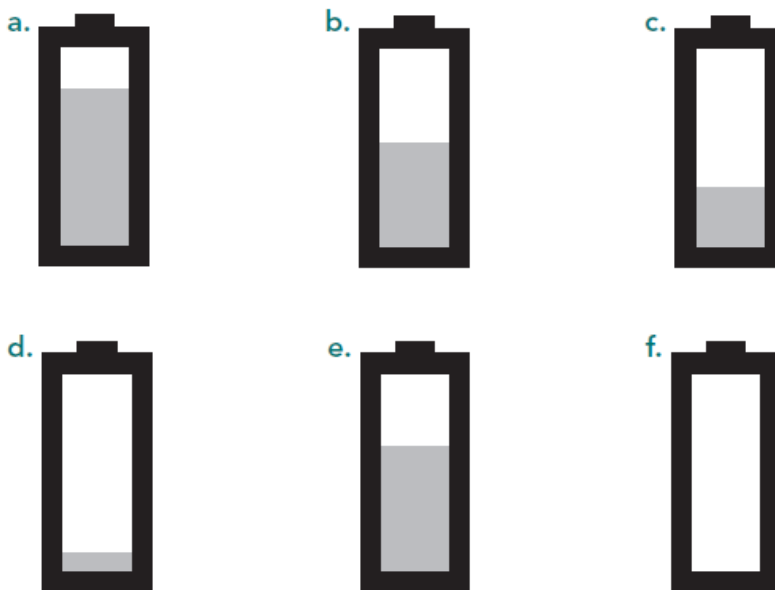
2. Estimate the shaded part of each circle shown, and write it as a percent.

a.   b.   c.

d.   e.   f.
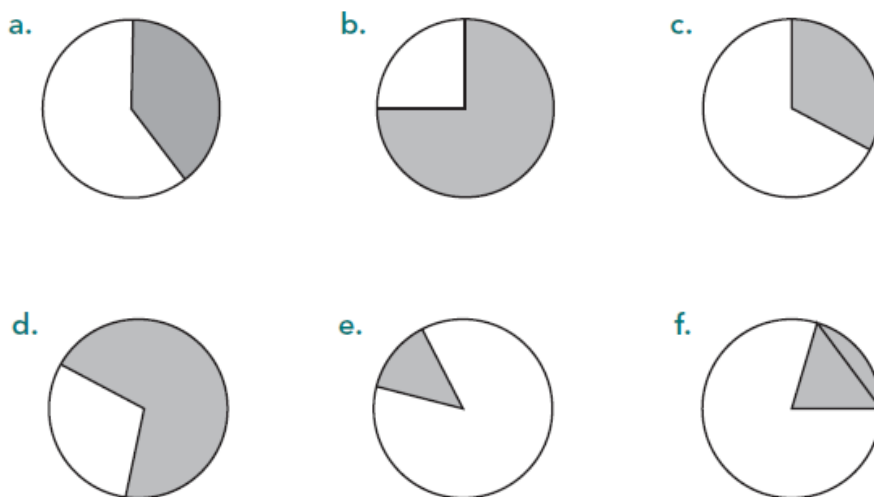
3. Estimate the shaded part of each model, and write it as a fraction, a decimal, and a percent. Write the fraction in lowest terms.

a.

b.

c.

d.

e.

f.

4. Describe the strategies that you used to make your estimations.

Homework HW

LESSON 5.2a
Warming the Bench

Objective Using Estimation and Benchmark Percents

Review

1. Complete the table. Write each as a fraction, decimal, and percent.

Fraction	Decimal	Percent
		3%
	1.5	
$\frac{13}{20}$		
$\frac{2}{3}$		

2. Miss Jenn is the teacher of a preschool class at Kids Unlimited Daycare. She must split the children's time between playing and learning. For every 30 minutes, the children will spend 18 minutes playing and 12 minutes learning. Complete the table of equivalent ratios.

Total amount of time	30	90		
Playing time	18			144
Learning time	12		48	

3. Use the standard algorithm to determine each quotient.

a. 8302 ÷ 28

b. 39.13 ÷ 4.3