

## Frequently Asked Questions

**Q:** How are percents, fractions, and decimals related?

**A:** They are all ways to describe ratios or parts of amounts. If you know one form (percent, fraction, or decimal), you can determine the other two equivalent forms.

For example, 80% means 80 out of 100 or  $\frac{80}{100}$ , which is equivalent to  $\frac{4}{5}$ . The fraction  $\frac{80}{100}$  means 80 hundredths, which is equivalent to 0.80 or 0.8.

**Q:** How do you estimate a percent?

**A:** Use benchmarks (numbers that are easy to use) to estimate. For example, 24% of 38 is about 25% of 40. Since 25% of 40 is  $\frac{1}{4}$  of 40, 24% of 38 is about 10.

## Practice

## Lesson 4.1

- How many cents does each percent of a dollar represent?
  - 1%
  - 72%
  - 100%
  - 40%
- Complete each statement using  $<$ ,  $>$ , or  $=$ .
  - $15\% > 0.2$
  - $\frac{1}{4} < 25\%$
  - $0.8 > 75\%$
  - $0.5 > 5\%$
- There are 16 children and 24 adults at an art show.
  - What percent of the people are children?
  - What percent of the people are adults?

## Lesson 4.3

- Estimate each percent. Show your work.
  - 42 out of 52
  - $\frac{18}{47}$
  - \$19.99 compared to \$79.97
  - 29 seconds out of 1 minute
- Is each statement reasonable or unreasonable? Explain how you know.
  - 12% of 42 is about 4.
  - 35% of 150 is about 50.
  - 72% of 60 is about 58.
  - 45% of 180 is about 90.
- Which benchmarks would you use to estimate each amount? Estimate each amount using these benchmarks.
  - a 15% tip on a restaurant bill of \$39.45
  - 6% tax on an item costing \$41.95
- Bones account for about 20% of a person's total mass. Estimate the mass of the bones in a 62 kg person.

## Lesson 4.4

- Barry got 17 out of 20 on a science test and 39 out of 50 on a math test. On which test did he do better? Explain.
- Tracy and Tristan both earn a percent of any sales they make at a furniture store. Last month, Tracy earned \$750 on sales of \$5000, and Tristan earned \$825 on sales of \$6875. Who earns the greater percent? Show how you know.
- Explain which sale offers the greatest discount.

Three sale signs for phone cards are shown:

- Sign 1:** Discount Phone Cards. You pay just \$15 for a \$20 card.
- Sign 2:** PHONE CARDS SALE!! Were \$10 Now only \$7.
- Sign 3:** \$10 Save on phone cards. \$15 (with a slash through it).