

LESSON
4.11

Math Boxes



1. Write the following fractions in order from smallest to largest.

$$\frac{1}{25} \quad \frac{6}{7} \quad \frac{9}{10} \quad \frac{1}{3} \quad \frac{5}{8}$$



2. Which of the following percents is equivalent to $\frac{3}{5}$? Choose the best answer.

6.2%

67%

8.3%

63%



3. Fill in the missing numbers.

| Fraction | Decimal | Percent |
|---------------|---------|---------|
| $\frac{1}{5}$ | | |
| | 0.625 | |
| | | 60% |
| | 0.5 | |
| | | 5% |



4. Complete.

a. $\frac{2}{5}$ of 75 = _____

b. $\frac{3}{8}$ of 24 = _____

c. $\frac{5}{6}$ of 48 = _____

d. $\frac{1}{2}$ of $2\frac{1}{2}$ = _____

e. $\frac{3}{12}$ of 92 = _____

Cancel and show is spiral



5. Use the formula $I = \frac{C}{2.54}$ to convert centimeters to inches.

Evaluate the formula when $C = 76.2$.

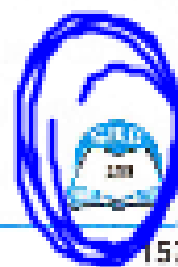
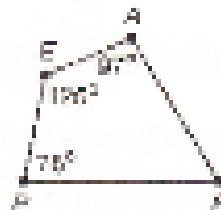
$I =$ _____

76.2 cm = _____ in.



6. Find the measure of $\angle R$ without measuring the angle.

$m\angle R$ is _____



LESSON
4•11

Percent Problems

Math Message



A DVD that regularly costs \$25 is on sale for 20% off.

1. What is the discount in dollars? _____
2. What is the sale price? _____

Solve Problems 3–6 using paper and pencil.

3. An electronic handheld game player that costs \$120 is on sale for 25% off.
 - a. What is the discount in dollars? _____
 - b. What is the sale price? _____
4. A bank offers a simple interest rate of 6% per year.
 - a. What is the interest on \$100 at the end of 1 year? _____
 - b. What is the interest on \$500 at the end of 1 year? _____
 - c. What is the interest on \$1,000 at the end of 1 year? _____
5. The \$2.50 price of a hot dog at a neighborhood baseball park is shared as follows:
 - 20% pays for the hot dog, bun, and fixings.
 - 20% pays the concession stand workers.
 - 10% is profit for the concession stand owner.
 - 10% pays for the electricity/fuel costs to cook and heat the hot dogs.
 - 40% pays for rental fees on the stand and cooking equipment.
 - a. How much do the hot dog, bun, and fixings cost? _____
 - b. How much goes to rental fees? _____
 - c. How much does the concession stand owner get? _____

You may use a calculator to help you solve Problems 6–8.

6. A CD that regularly costs \$14.98 is on sale for 20% off.
 - a. What is the discount in dollars? _____
 - b. What is the sale price? _____

4.11 Percent of a number

Pujols Fathead \$125

30% discount

a) $125 \cdot .3 = 37.50$

b) $125 \cdot .7 = 87.50$

a) How much am I saving?

b) How much is it going to cost?

\$115 put into his savings account.

7% a) How much interest will I make?

$$115 \cdot 0.07 = \$8.05$$

b) How much \$ will I have altogether?

$$115 \cdot 1.07 = \$123.05$$

Bike \$285 45% off

What is the cost of the bike after discount?

If 45% is the discount, then the cost is 55%.

That means I have to take $.55 \cdot 285$

\$156.75

625 students at RVDH
expected increase of 3%. How many
students will we have?

$$625 * 1.03 = 643.75$$

$$\begin{array}{r} 625 \cdot 03 = 18.75 \\ + 625.00 \\ \hline 643.75 \end{array}$$

643 people

LESSON
4-11
Percent Problems *continued*

7. The table below shows the results of a science literacy test given to 1,574 adults in 2001. Round to the nearest whole number to find the number of people who correctly answered each question.



| Question | Percent Correct | Number of People |
|--|-----------------|------------------|
| How long does it take Earth to go around the Sun: One day, one month, or one year? Answer: One year | 54% | |
| True or false: Lasers work by focusing sound waves. Answer: false | 45% | |
| Which travels faster, light or sound? Answer: light | 76% | |
| True or false: The earliest humans lived at the same time as the dinosaurs. Answer: false | 48% | |

Source: Science and Engineering Indicators—2009

8. In 1999, there were about 14.5 million high school students in the United States. The number of high school students is expected to increase about 7% between 1999 and 2010.
- About how many more high school students will there be in 2010?

 - About how many high school students will there be in all in 2010?

- Source: National Center for Education Statistics (NCES)
9. Suppose elementary school students make up about 15% of the U.S. population. About how many elementary school students would you expect to live in a town that has a population of 50,000?

P157-160

SL 4.11

Test Tuesday

Test & Know

- Fraction \rightarrow Decimal \rightarrow Percent
- Simplest form
- Common denominators
- Add fractions + Mixed numbers
- Percent of