SKILL 15: Percents Greater Than 100 or Less Than 1

Mr. Lockwood's class at Kendall School is collecting aluminum cans to recycle. The goal is to collect 500 cans. So, 500 represents 100% of their goal.

Percents can be less than 1% or greater than 100%.

110% — 550 cans
100% — Goal: 500 cans
80% — 400 cans
60% — 300 cans
40% — 200 cans
20% — 100 cans
0% — 0 cans
1% — 5
0% — 0

Example 1

On the first day, one student brought 3 cans. Write 3 out of 500 as a percent.

$$\frac{3}{500} = \frac{3 \div 5}{500 \div 5} = \frac{0.6}{100} = 0.6\%$$

Read: *6 tenths percent.*
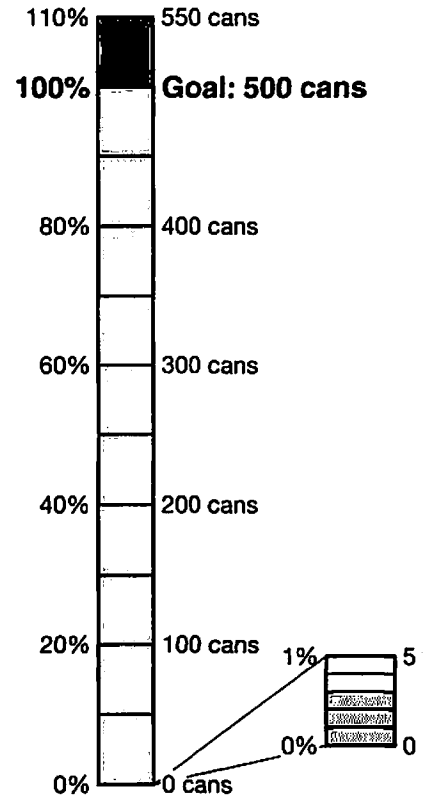
0.6% is less than 1% of the goal.

Example 2

By the end of the second week, the students had collected 550 cans. Write 550 as a percent of 500.

$$\frac{550}{500} = \frac{550 \div 5}{500 \div 5} = \frac{110}{100} = 110\%$$

Read: *one hundred ten percent*

Notice that 110% is more than 100% of the goal.

Guided Practice

Write each fraction, mixed number, or whole number as a percent.

1. $\frac{2}{400} = \frac{2 \div 4}{400 \div 4} = \frac{0.5}{100} =$ _____

2. $2\frac{1}{2} = \frac{5}{2} = \frac{5 \times 50}{2 \times 50} = \frac{250}{100} =$ _____

3. $\frac{16}{500} = \frac{16 \div 5}{500 \div 5} = \frac{3.2}{100} =$ _____

4. $4 = \frac{4}{1} = \frac{4 \times 100}{1 \times 100} = \frac{400}{100} =$ _____

Write each decimal as a percent. (Hint: When you multiply by 100, move the decimal point two places to the right.)

5. 0.004 = _____

6. 2.09 = _____

7. 0.061 = _____

8. 3.57 = _____

Write each percent as a decimal.

9. 240% = 240 ÷ 100 = _____

10. 0.3% = 0.3 ÷ 100 = _____

Find each percent.

11. 0.9% of 120

0.009 × 120 = _____

12. 225% of 40

2.25 × 40 = _____

13. 0.2% of 134

_____ × _____ = _____

SKILL 15: Practice

Write each percent as a decimal.

1. 0.3% _____   **2.** 215% _____   **3.** 0.95% _____   **4.** 500% _____

5. 0.7% _____   **6.** 150% _____   **7.** 625% _____   **8.** 0.03% _____

Write each decimal, fraction, mixed number, or whole number as a percent.

9. $1\frac{1}{2}$ _____   **10.** $3\frac{1}{5}$ _____   **11.** $\frac{3}{200}$ _____

12. $\frac{50}{1000}$ _____   **13.** 1.82 _____   **14.** 5.6 _____

15. 0.008 _____   **16.** 0.0012 _____   **17.** 3 _____

Find each answer.

18. 0.4% of 800 = _____   **19.** 300% of 18 = _____

20. 175% of 4 = _____   **21.** 0.5% of 600 = _____

Solve each problem.

22. Suppose the goal for Mr. Lockwood's class had been 250 cans. Then 550 cans would have been what percent of the goal?   _____

23. Suppose the goal had been 1,000 cans. Then 550 cans would have been what percent of the goal?   _____

24. Fran said that 150% of the 30 students in Mr. Lockwood's class participated in the can-collecting activity. Is this possible? Explain.
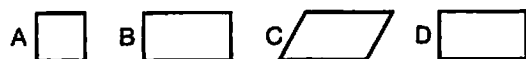
_____

TEST PREP

25. Find 180% of 300.

Skill 15

A 5.4   **C** 54

B 54,000   **D** 540

26. Which figures appear to be similar?

Skill 8

A □ B ▭ C ▱ D ▭

F A and B   **H** A and C

G C and D   **J** B and D