

LESSON
8-8 Practice B
Percents, Decimals, and Fractions

Write each decimal as a percent.

1. 0.03

2. 0.92

3. 0.18

4. 0.49

5. 0.7

6. 0.09

7. 0.26

8. 0.11

9. 1.0

Write each fraction as a percent.

10. $\frac{2}{5}$

11. $\frac{1}{5}$

12. $\frac{7}{10}$

13. $\frac{1}{20}$

14. $\frac{1}{50}$

15. $\frac{4}{50}$

Compare. Write $<$, $>$, or $=$.

16. 60% $\frac{2}{3}$

17. 0.4 $\frac{2}{5}$

18. 0.5 5%

19. $\frac{1}{100}$ 0.03

20. $\frac{7}{9}$ 72%

21. $\frac{3}{10}$ 35%

22. Bradley completed $\frac{3}{5}$ of his homework. What percent of his homework does he still need to complete?

23. After reading a book for English class, 100 students were asked whether or not they enjoyed it. Nine twenty-fifths of the students did not like the book. How many students liked the book?

LESSON Practice B
8-8 Percents, Decimals, and Fractions

Write each decimal as a percent.

1. 0.03 3% 2. 0.92 92% 3. 0.18 18%
 4. 0.49 49% 5. 0.7 70% 6. 0.09 9%
 7. 0.26 26% 8. 0.11 11% 9. 1.0 100%

Write each fraction as a percent.

10. $\frac{2}{5}$ 40% 11. $\frac{1}{5}$ 20% 12. $\frac{7}{10}$ 70%
 13. $\frac{1}{20}$ 5% 14. $\frac{1}{50}$ 2% 15. $\frac{4}{50}$ 8%

Compare. Write <, >, or =.

16. 60% \square $\frac{2}{3}$ 17. 0.4 \square $\frac{2}{5}$
 18. 0.5 \square 5% 19. $\frac{1}{100}$ \square 0.03
 20. $\frac{7}{9}$ \square 72% 21. $\frac{3}{10}$ \square 35%

22. Bradley completed $\frac{3}{5}$ of his homework. What percent of his homework does he still need to complete?
40%

23. After reading a book for English class, 100 students were asked whether or not they enjoyed it. Nine twenty-fifths of the students did not like the book. How many students liked the book?
64 students

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LESSON Practice C
8-8 Percents, Decimals, and Fractions

Write each decimal as a percent and as a fraction or mixed number.

1. 0.96 96%; $\frac{24}{25}$ 2. 0.04 4%; $\frac{1}{25}$ 3. 0.28 28%; $\frac{7}{25}$
 4. 0.65 65%; $\frac{13}{20}$ 5. 0.32 32%; $\frac{8}{25}$ 6. 0.005 0.5%; $\frac{1}{200}$
 7. 1.13 113%; $1\frac{13}{100}$ 8. 2.08 208%; $2\frac{2}{25}$ 9. 3.002 300.2%; $3\frac{1}{500}$

Write each fraction as a percent and as a decimal. Round to the nearest hundredth if necessary.

10. $\frac{12}{13}$ 92%; 0.92 11. $\frac{22}{27}$ 81%; 0.81 12. $\frac{15}{26}$ 58%; 0.58
 13. $\frac{9}{31}$ 29%; 0.29 14. $\frac{34}{35}$ 97%; 0.97 15. $\frac{11}{23}$ 48%; 0.48

Compare. Write <, >, or =.

16. $\frac{12}{17}$ \square 77% 17. 0.18 \square $\frac{11}{25}$
 18. $\frac{11}{50}$ \square 0.22 19. $\frac{21}{33}$ \square 80%
 20. 0.4 \square $\frac{9}{32}$ 21. $\frac{5}{16}$ \square 28%

22. During a sale, everything in the store was $\frac{1}{5}$ off the ticketed price. What percent of an item's original price should you expect to pay?
80%

23. Your teacher has offered you a choice for your 50 homework problems. You can do 48% of the problems, all of the even-numbered problems, or $\frac{3}{5}$ of the problems. Which option will you choose? How many problems will you have to do for homework?
Answers will vary, but most students will choose the option with the fewest problems: 48% of the problems or 24 problems.

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LESSON Reteach
8-8 Percents, Decimals, and Fractions

You can write decimals as percents.

To write 0.5 as a percent, multiply the decimal by 100%.
 $0.5 \cdot 100\% = 50\%$

To multiply a number by 100, move the decimal point two places to the right.
 0.50
 So, 0.5 = 50%.

Write each decimal as a percent.

1. 0.8 80% 2. 0.64 64% 3. 0.075 7.5% 4. 0.29 29%

You can solve a proportion to write a fraction as percent.

To write $\frac{3}{4}$ as a percent, first set up a proportion.

$$\frac{3}{4} = \frac{x}{100}$$

$3 \cdot 100 = 4 \cdot x$ The cross products are equal.

$$300 = 4x$$

$\frac{4x}{4} = \frac{300}{4}$ x is multiplied by 4.

$$x = 75$$

Divide both sides by 4.

So, $\frac{3}{4} = \frac{75}{100}$

$\frac{75}{100} = 75\%$, So, $\frac{3}{4} = 75\%$.

Write each fraction as a percent.

5. $\frac{4}{5}$ 80% 6. $\frac{9}{10}$ 90% 7. $\frac{1}{8}$ 12.5% 8. $\frac{7}{25}$ 28%
 9. $\frac{1}{4}$ 25% 10. $\frac{5}{6}$ 83.3% 11. $\frac{3}{4}$ 75% 12. $\frac{1}{5}$ 20%

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LESSON Challenge
8-8 Trash or Treasure?

People in the United States produce about 208 million tons of garbage every year! We recycle about 56 million tons of that garbage, or about 27% of the total.

Complete the chart at right. Then display the percents on the circle graph below. Remember to give your graph a title. Label each section of the graph with the material and the percent of the total garbage recycled that each section represents. You may wish to color each section differently or add illustrations.

| Material | Total Garbage Recycled | |
|---------------------|------------------------|---------|
| | Fraction | Percent |
| Metals | $\frac{1}{10}$ | 10% |
| Yard Waste | $\frac{17}{100}$ | 17% |
| Glass | $\frac{3}{50}$ | 6% |
| Paper | $\frac{29}{50}$ | 58% |
| Plastics | $\frac{1}{50}$ | 2% |
| All Other Materials | $\frac{7}{100}$ | 7% |

United States Recycling

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