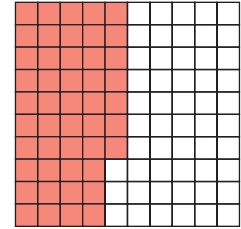


Writing Fractions, Decimals, and Percents

A **percent** is a part-to-whole ratio where the whole is 100. The symbol for percent is %.

In the model, 47 of the 100 squares are shaded. You can write the shaded part of the model as a fraction, a decimal, or a percent.



Fraction: forty-seven out of one hundred, or $\frac{47}{100}$

Decimal: forty-seven hundredths, or 0.47

Percent: forty-seven percent, or 47%

Example 1 Write the percent or decimal as a fraction.

a. $86\% = \frac{86}{100} = \frac{43}{50}$

b. $125\% = \frac{125}{100} = \frac{5}{4}$, or $1\frac{1}{4}$

c. $0.2 = \frac{2}{10} = \frac{1}{5}$

Example 2 Write the percent or fraction as a decimal.

a. $19\% = 19. = 0.19$

b. $\frac{3}{8} = 3 \div 8 = 0.375$

c. $\frac{3}{20} = \frac{3 \cdot 5}{20 \cdot 5} = \frac{15}{100} = 0.15$

Example 3 Write the decimal or fraction as a percent.

a. $0.34 = 0.34 = 34\%$

b. $0.915 = 0.915 = 91.5\%$

c. $\frac{3}{2} = \frac{3 \cdot 50}{2 \cdot 50} = \frac{150}{100} = 150\%$

Practice

Check your answers at BigIdeasMath.com.

Write the percent or decimal as a fraction.

1. $0.7 = \frac{7}{10}$

2. $0.08 = \frac{2}{25}$

3. $0.79 = \frac{79}{100}$

4. $1.75 = 1\frac{3}{4}$

5. $0.125 = \frac{1}{8}$

6. $0.744 = \frac{93}{125}$

7. $25\% = \frac{1}{4}$

8. $38\% = \frac{19}{50}$

9. $96\% = \frac{24}{25}$

10. $1\% = \frac{1}{100}$

11. $225\% = \frac{9}{4}$, or $2\frac{1}{4}$

12. $0.5\% = \frac{1}{200}$

Write the percent or fraction as a decimal.

13. $\frac{3}{4} = 0.75$

14. $\frac{5}{8} = 0.625$

15. $\frac{11}{50} = 0.22$

16. $\frac{17}{25} = 0.68$

17. $\frac{31}{20} = 1.55$

18. $\frac{101}{200} = 0.505$

19. $10\% = 0.1$

20. $27\% = 0.27$

21. $65\% = 0.65$

22. $100\% = 1$

23. $0.8\% = 0.008$

24. $350\% = 3.5$

Write the decimal or fraction as a percent.

25. $0.35 = 35\%$

26. $0.91 = 91\%$

27. $0.5 = 50\%$

28. $1.4 = 140\%$

29. $0.02 = 2\%$

30. $0.006 = 0.6\%$

31. $\frac{3}{25} = 12\%$

32. $\frac{17}{20} = 85\%$

33. $\frac{7}{8} = 87.5\%$

34. $\frac{1}{16} = 6.25\%$

35. $\frac{11}{2} = 550\%$

36. $\frac{23}{40} = 57.5\%$

37. Which is greater, $\frac{5}{6}$ or 83%? $\frac{5}{6}$

38. Which is greater, 11.1% or $0.\bar{1}$? $0.\bar{1}$