

Section 4.R.4 Basics of Percentages

Go to Section 4.R.4 Learn mode in Hawkes to follow along!

Percents

The word percent comes from the Latin *per centum*, meaning _____. So **percent** means _____, or **the ratio of a number to** _____.

The symbol % is called the _____. This sign has the same meaning as the fraction $\frac{1}{100}$.

▣ Example 1 Changing Fractions with Denominators of 100 to Percents

Change each fraction to a percent.

a. $\frac{7}{100}$

b. $\frac{83}{100}$

c. $\frac{6.4}{100}$

d. $\frac{100}{100}$

e. $\frac{240}{100}$

Exercises

Change each fraction to a percent.

1. $\frac{80}{100}$

3. $\frac{0.2}{100}$

2. $\frac{125}{100}$

4. $\frac{2.14}{100}$

Changing Decimal Numbers to Percents

To Change a Decimal Number to a Percent

1. Move the _____
2. Write the _____

▣ Example 2 Changing Decimal Numbers to Percents

Change each decimal number to a percent.

a. 0.254

b. 0.005

c. 1.5

d. 0.2

Exercises

Change each decimal number to a percent.

5. 0.02

7. 1.75

6. 0.7

8. 25

Changing Percents to Decimal Numbers

To Change a Percent to a Decimal Number

1. Move the _____
2. Delete the _____

▣ Example 3 Changing Percents to Decimal Numbers

Change each percent to a decimal number.

- a. 76 %
- b. 18.5%
- c. 50%
- d. 100%
- e. 0.25%

Exercises

Change each percent to a decimal number.

- | | |
|---------|-----------|
| 9. 2% | 11. 125% |
| 10. 42% | 12. 10.1% |

Changing Fractions to Percents

To Change a Fraction to a Percent

1. Change the fraction to _____
2. Change the decimal number to _____

▣ Example 4 Changing Fractions to Percents

Change $\frac{11}{20}$ to a percent.

Solution

Exercises

Change each fraction or mixed number to a percent. If necessary, round to the nearest tenth of a percent.

13. $\frac{7}{100}$

15. $\frac{1}{8}$

14. $\frac{11}{20}$

16. $2\frac{1}{10}$

Changing Percents to Fractions

To Change a Percent to a Fraction or a Mixed Number

1. Write the percent as a fraction with _____
2. _____

▮ Example 11 Changing Percents to Mixed Numbers

Change 130% to a mixed number and reduce, if possible.

Solution

Exercises

Change each percent to a fraction or mixed number and reduce, if possible.

17. 4%

19. $\frac{1}{2}\%$

18. 300%

20. $37\frac{1}{2}\%$