

Percents as Fractions

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CONCEPT

1

Percents as Fractions

Here you'll learn to write percents as fractions.

In the last Concept, you saw how Casey could convert percents to decimals. We are going to use the same situation in this Concept. Take a look.

Casey has moved from milk to organic vegetables. She has heard of a CSA - community supported agriculture and is wondering how many people actually belong to a CSA. She surveyed the 90 students in her class and found that 30% of the students belong to a CSA. That means that 70% don't belong to one.

If Casey wanted to write these percents as fractions how could she do it? Do you know?

Yes, this Concept is all about converting percents to fractions. By the end of this Concept, you will know how to complete this task.

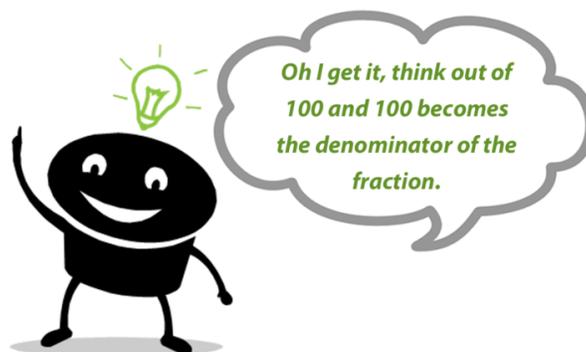
Guidance

A percent is also related to a *fraction* because they are both parts of a whole. Just like we could write percents as decimals, we can also write percents as fractions.

How do we write a percent as a fraction?

To write a percent as a fraction, we have to think of it as "out of 100" once again. A fraction is a ratio comparing certain quantities. Six out of 10 would be written as six-tenths. The ten becomes our denominator.

We can use this information to write a percent as a fraction.



Write 44% as a fraction.

44% means 44 out of 100. 44 becomes the numerator and 100 becomes the denominator.

$$44\% = \frac{44}{100}$$

Our answer is $\frac{44}{100}$.

What about when we have a percent that doesn't have two places, like 7%?

To convert 7% to a fraction, you simply write it over 100. Because 7 percent means 7 out of 100.

Practice writing percents as fractions.

Example A

68%

Solution: $\frac{68}{100}$ **Example B**

13%

Solution: $\frac{13}{100}$ **Example C**

21%

Solution: $\frac{21}{100}$

Now back to Casey. Here is the original problem once again.

Casey has moved from milk to organic vegetables. She has heard of a CSA - community supported agriculture and is wondering how many people actually belong to a CSA. She surveyed the 90 students in her class and found that 30% of the students belong to a CSA. That means that 70% don't belong to one.

If Casey wanted to write these percents as fractions how could she do it? Do you know?

To convert the percent to a fraction, we need to use a denominator of 100 instead of a percent sign.

$$30\% = \frac{30}{100}$$

$$70\% = \frac{70}{100}$$

We can also simplify these fractions.

$$\frac{30}{100} = \frac{3}{10}$$

$$\frac{70}{100} = \frac{7}{10}$$

This completes our work.

Vocabulary

Here are the vocabulary words in this Concept.

Percent

means out of 100, it is a quantity written with a % sign, and is a part of a whole (100)

Fraction

a part of a whole, related to decimals and percents.

Decimal

a part of a whole shown by a decimal point, hundredths means two decimal places.

Guided Practice

Here is one for you to try on your own.

Write the following percent as a fraction.

95%

Answer

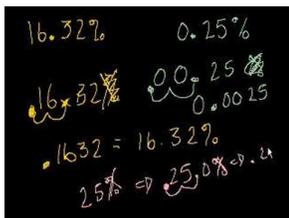
We know that the % sign means "out of 100" therefore, 100 is our denominator.

95 is the part out of 100, so that is our numerator.

Our answer is $\frac{95}{100}$.

Video Review

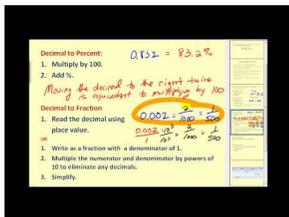
Here are videos for review.



MEDIA

Click image to the left for more content.

KhanAcademy, Percent and Decimals



MEDIA

Click image to the left for more content.

James Sousa, Introduction to Percent

Practice

Directions: Write each percent as a fraction.

1. 54%
2. 11%
3. 6%
4. 12%
5. 89%
6. 83%
7. 19%
8. 4%
9. 9%
10. 18%

11. 89%
12. 100%
13. 23%
14. 77%
15. 98%
16. 2%