

# Writing Fractions and Decimals as Percent



In previous tutorials, we've explored writing fractions as decimals and... decimals as fractions. In this tutorial, we'll explore solution paths for writing fractions and decimals as percent.

A student used the following solution path to determine the fraction  $\frac{3}{5}$  is equivalent to 60%.

The student's work is written on lined paper. It shows the following steps:  
1.  $\frac{3}{5} = \frac{\square}{100}$   
2. An arrow labeled "x20" points from the denominator 5 to 100.  
3.  $\frac{3}{5} = \frac{60}{100}$  (The number 60 is boxed.)  
4. An arrow labeled "x20" points from the numerator 3 to 60.  
5.  $\frac{3}{5} = 60\%$

- Why does the student begin their solution path by writing a fraction out of 100?

This image shows the same handwritten work as above, but with a magnifying glass focused on the first step:  $\frac{3}{5} = \frac{\square}{100}$ . The rest of the work is faded.

- How would I explain and demonstrate the math the student is performing at this step of their solution?

This image shows the same handwritten work as above, but with a magnifying glass focused on the second step:  $\frac{3}{5} = \frac{60}{100}$ . The rest of the work is faded.



- How does this approach for solving, illustrate why the fraction  $\frac{3}{5}$  is equivalent to 60%?

The notebook page shows the following steps:

$$\frac{3}{5} = \frac{\square}{100}$$

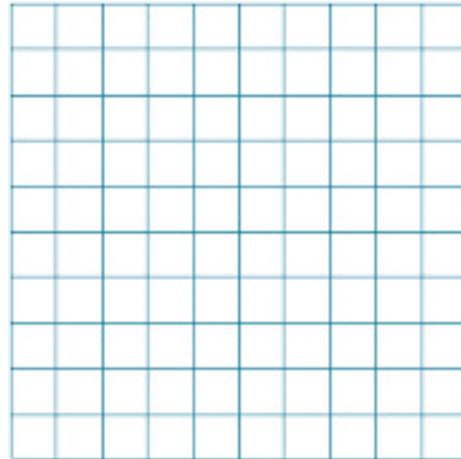
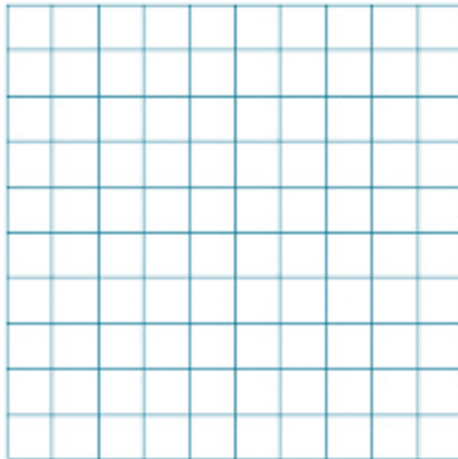
A curved arrow labeled "x20" points from the denominator 5 to 100.

$$\frac{3}{5} = \frac{60}{100}$$

A curved arrow labeled "x20" points from the numerator 3 to 60.

$$\frac{3}{5} = 60\%$$

- How would I use the diagrams to illustrate and verify the previous calculation?



- In what situation, would this solution approach not help me write a fraction as a percent?

The notebook page shows the following steps:

$$\frac{3}{5} = \frac{\square}{100}$$

A curved arrow labeled "x20" points from the denominator 5 to 100.

$$\frac{3}{5} = \frac{60}{100}$$

A curved arrow labeled "x20" points from the numerator 3 to 60.

$$\frac{3}{5} = 60\%$$



- How would I adjust my solution approach when it is not possible to write an equivalent fraction out of 100?

$$\frac{3}{8} = \frac{\boxed{\phantom{000}}}{100}$$

- How would I explain and demonstrate performing this division?

$$\frac{3}{8} = 3 \div 8$$

- I know the fraction  $\frac{3}{8}$  is equivalent to the decimal 0.375. How will I use this information to calculate and write the equivalent percent value?

$$\frac{3}{8} = 0.375$$



Let's review using new examples.

- How would I summarize my steps for writing the fraction as a percent?

$$\frac{7}{20} = \square\%$$

- Can I follow the same steps for writing the fraction  $\frac{1}{8}$  as a percent? If not, how will I adjust my solution path?

$$\frac{1}{8} = \square\%$$

## Writing Fractions and Decimals as Percent-Skills Checklist



I can explain and demonstrate how I write an equivalent fraction

I can explain the meaning of percent

I can explain and demonstrate how I write a fraction as a percent by writing an equivalent fraction out of 100

I can explain and demonstrate how I write the decimal equivalent of a fraction

I can explain and demonstrate how I convert a decimal value to a percent

# Writing Fractions and Decimals as Percent-Worksheet



$2ab + 6k$   
 $2ab + 6k$

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