Writing an Amount as a Percent Value

In this tutorial, I'll explore various solution paths for solving the following type of percent problem…

$$What\ percent\ of\ 5\ is\ 3?$$

I'll begin by thinking about what this problem is asking me to solve.

- How might I rewrite this problem to help explain what I'm being asked to solve for?

$$What\ percent\ of\ 5\ is\ 3?$$

- How could I use a fraction to rewrite and illustrate this problem in a different way?

$$What\ percent\ of\ 5\ is\ 3?$$
$$3\ is\ what\ percent\ of\ 5?$$

- How would I explain the meaning of percent?

$$What\ percent\ of\ 5\ is\ 3?$$
$$3\ is\ what\ percent\ of\ 5?$$
$$What\ is\ \frac{3}{5}\ written\ as\ a\ percent?$$

- How would I use this statement to explain how I could solve… *what percent of 5 is 3?*

- How would I explain and demonstrate writing my equivalent fraction out of 100?

$$\frac{3}{5} = \frac{\boxed{?}}{100}$$

- How does writing an equivalent fraction *out of 100* allow me to determine a percent value?

- How would I summarize my solution path for solving… *what percent of 5 is 3?*

I'll try solving a new problem using the same approach as the previous example.

- How would I use a fraction to explain and illustrate this problem?

$$What\ percent\ of\ 12\ is\ 9?$$

I'm ready to calculate my equivalent fraction out of 100… similar to the previous problem.

- How is my solution path at this step different to the previous problem?

$$\frac{9}{12} = \frac{\square}{100}$$

I'll need to consider another solution path for solving… *what percent of 12 is 9.* I'll begin by simplifying the fraction $\frac{9}{12}$.

- How would I explain and demonstrate simplifying the fraction $\frac{9}{12}$?

$$\frac{9}{12} = \frac{\square}{100}$$

I've simplified the fraction shown in the original problem… $\frac{9}{12} = \frac{3}{4}$

- How would I explain and demonstrate the next step in my solution?

$$\frac{9}{12} = \frac{3}{4} = \frac{\square}{100}$$

- How does writing an equivalent fraction *out of 100* allow me to determine a percent value?

- How would I summarize my steps for solving… *what percent of 12 is 9?*

$$\frac{9}{12} = \frac{3}{4} = \frac{75}{100} = 75\%$$

I'll explore one more example…

$$What\ percent\ of\ 8\ is\ 5?$$

- How would I explain and illustrate this problem using a fraction?

- Why does the fraction $\frac{5}{8}$ require a different solution path compared to the previous problems?

$$\frac{5}{8} = \frac{\square}{100}$$

- How would I explain and demonstrate writing the fraction $\frac{5}{8}$ as an equivalent decimal?

- How would I explain and demonstrate completing my solution for… *what percent of 8 is 5?*

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

- How would I summarize my solution path for solving… *what percent of 8 is 5?*

$$\frac{5}{8} = \frac{0.625}{1} = \frac{62.5}{100} = 62.5\%$$

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Which statements do I feel confident explaining and demonstrating?
Which statements do I not feel confident explaining and demonstrating?