

Problem 3 Not Always?



Katie used Corinne's method to solve this problem:

1. Explain why Katie's answer is incorrect. Then, determine the correct answer.

Katie

My flight was \$229.99 but I got 20% off because I booked it online. What did I pay?

$$\frac{\text{Percent part}}{\text{Percent whole}} = \frac{\text{Part of quantity}}{\text{Whole quantity}}$$

$$\frac{20}{100} = \frac{x}{229.99}$$

$$\frac{4599.8}{100} = \frac{100x}{100}$$

$$45.998 = x$$

So, I paid about \$46.

3

Vicki also used Corinne's method but, got the answer without having to subtract:



2. Explain why Vicki's method worked.

Vicki

My flight was \$229.99 but I got 20% off because I booked it online. What did I pay?

$$\frac{\text{Percent part}}{\text{Percent whole}} = \frac{\text{Part of quantity}}{\text{Whole quantity}}$$

$$\frac{80}{100} = \frac{x}{229.99}$$

$$\frac{18399.2}{100} = \frac{100x}{100}$$

$$183.99 = x$$

If I take 40% off \$100, that's \$100 - \$40. That leaves me with \$60, which is 100% - 40%, or 60%.
Hmmm...

