

Answer on Question #47445 – Math – Other

How can you determine if 2 ratios are equivalent?

Solution:

Ratios express a relationship between two numbers. When we have to compare ratios we want to determine whether they are equal or if one of them is larger. To compare ratios, we need to have a common second number. By multiplying each ratio by the second number of the other ratio, we can determine if they are equivalent.

Also, there is a general rule for determining whether the equivalent two ratios. Firstly we multiply both numbers in the first ratio by the second number of the second ratio. For example, if the ratios are $\frac{2}{3}$ and $\frac{4}{6}$, we multiply 2 by 6 and 3 by 6 to get $\frac{12}{18}$. Next we need to multiply both numbers in the second ratio by the original second number of the first ratio. In our case we multiply 4 by 3 and 6 by 3 to get $\frac{12}{18}$.

Then we have to compare the results. If the results are equal, the two ratios are equivalent. If not, they are not equivalent and the ratio with the higher first number is larger. According to our task, we can conclude that ratios are equivalent.

Also we can simplify the second ratio in our case to get the same ratio: $\frac{4}{6} = \frac{2}{3}$ by dividing on 2. So, we can see that ratio the same in the given example.

If the condition is not met, we can say that the ratios are not equivalent.