We know that total volume of mixture is 45 liters. And ratio of water to milk is $\frac{water}{milk} = \frac{2}{13}$. In this case we can find how much milk in this mixture:

$milk = 45 \cdot \frac{13}{15} = 39$. So, there is 39 liters of milk in this mixture. And in this mixture we have already $water = 45 - 39 = 6$: 6 liters of water.

If we need for ratio $\frac{milk}{water} = \frac{3}{1}$, then we will have that: $\frac{milk}{water} = \frac{39}{x} = \frac{3}{1} \Rightarrow x = 13$. It means that we need to have 13 liters of water to have ratio $\frac{milk}{water} = \frac{3}{1}$.

As we have already 5 liters of water then we need to add $\Delta water = 13 - 6 = 7$: 7 liters of water to have ratio $\frac{milk}{water} = \frac{3}{1}$.

Answer: 7 liters.