Answer on Question #57440 – Math – Algebra

Question

A mixture requires 8oz of Chemical A and 12oz of Chemical B. A mixture has 24oz of Chemical A and 30oz of Chemical B. How can you fix the mixture?

Solution

A/B ratio in required mixture is 8/12 = 2/3.
A/B ratio in mixture is 24/30 = 4/5.

Method 1

If we add 6oz of Chemical B, then the new A/B ratio in mixture will be 24/(30+6)=24/36=2/3.

Method 2

Another more difficult method is the following: take some part of mixture and then add extra chemical to change A/B ratio from 4/5 to 2/3. A way to fix mixture is to remove one third part of mixture. As a result, we will have a mixture with 8oz of Chemical A and 10oz of Chemical B, then add extra 2oz of Chemical B. Thus, a new mixture will contain 8oz of Chemical A and 12oz of Chemical B.