Problem 2

There are 300 cm^3 toluene of 0°C temperature in a glass and 110 cm^3 toluene of 100°C temperature in another glass. (The sum of the volumes is 410 cm^3.) Find the final volume after the two liquids are mixed. The coefficient of volume expansion of toluene $\beta = 0.001(^\circ\text{C})^{-1}$. Neglect the loss of heat.