Calculation of the temperature of a mix of flows

Initial data

20°C | 2997 kg	Flow №1	**40°C | 3969 kg**	Flow №2
60°C | 4916 kg	Flow №3	**80°C | 5831 kg**	Flow №4
100°C | 6706 kg	Flow №5	**120°C | 7534 kg**	Flow №6

Calculation results

2997kg +3969kg +4916kg +5831kg +6706kg +7534kg = 31953 [kg]	Total mass
2997kg*20°C +3969kg*40°C +4916kg*60°C +5831kg*80°C +6706kg*100°C +7534kg*120°C = 2554820 [kcal]	Contained heat
2554820 [kcal] / 31953 [kg] = 80 [°C]	The temperature of the water after mixing several flows