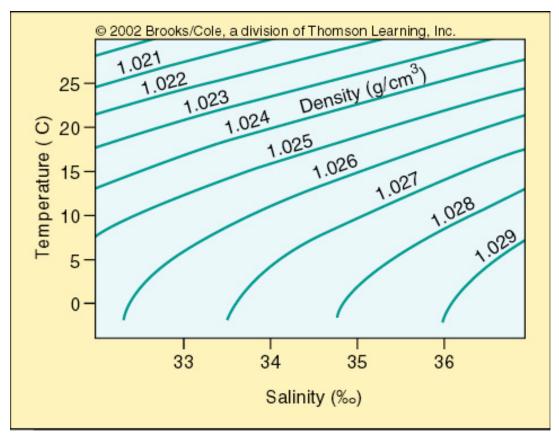
Temperature, Salinity, and Density



The above diagram shows the density as a function of Salinity and Temperature. What is the relationship between temperature and density? What is the relationship between salinity and density?

Find the following two water masses on the above plot:

Water mass $#1 = 18^{\circ}C$, 34‰

Water mass $\#2 = 10^{\circ}\text{C}$, 35.5%

What is the density of each?

If these two water masses came together, what would happen to Water mass #2 relative to water mass #1?