Test 3 Homework Reflection

Homework 3.1

Homework 3.1 was on pipe systems in series. Calculating the flow rate, energy losses, pipe diameter, determined K value, and pipe length. If determining the flow rate or pipe diameter a trail and error process will occur. You just use the Bernoulli's equation and simplify it and added in all your losses and set the equation to equal all your known values and pick and value for your unknow and do trial and error until it matches your know value.

Homework 3.2

Homework 3.2 was on pipe systems in parallel. That whole process is going to be a trail and error process. Set your Bernoulli's equation up in its simplest form, then create and equation for how many branches there are. Applying all the appropriate energy losses to each equation. Be careful that your get the correct flow rate with the right energy loss. when pipes branch off the flow rate will be different. The pressure changes from point A to Point B will be the same therefore the energy losses will be different as well. Once you get the equation set up you will do the iteration process until you get the values that matches within the 1%.

Homework 3.3

Homework 3.3 was about selecting pumps. You first figure out if you need a positive displacement pump or a kinetic pump. If you need a kinetic pump, you will figure out the pumps head required using Bernoulli's equation then use the charts in the catalog and find the pump you need.