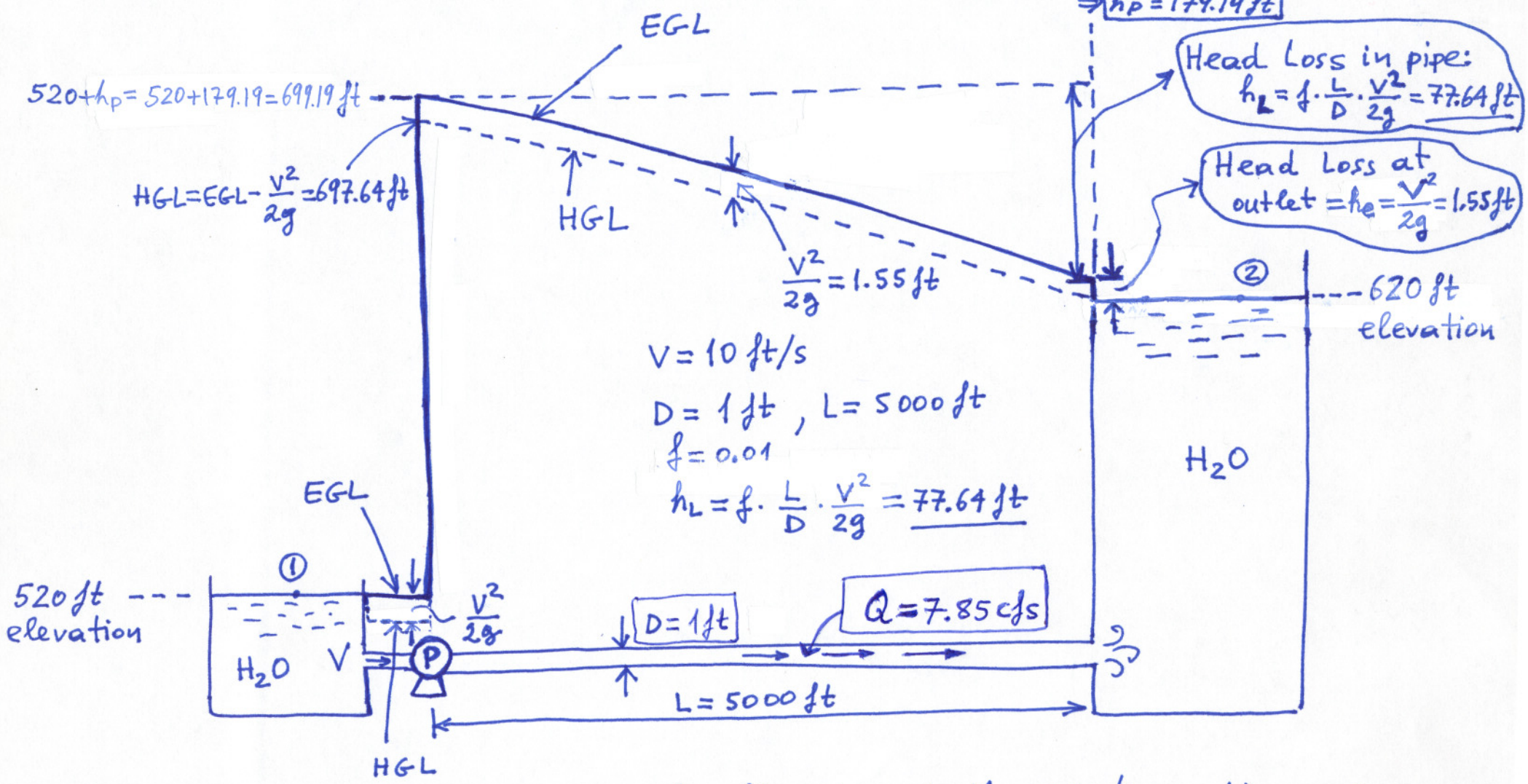
- Improved solution of Ex. 7.7 in the textbook (as presented in class)

CE319F

Energy equation between ① and ②: $EGL_2 - EGL_1 = h_p - h_L - h_e \Rightarrow 620 - 520 = h_p - 77.64 - 1.55$

$\Rightarrow h_p = 179.19\ ft$



Energy equation is shown graphically through the EGL/HGL diagram:

$EGL_2 = EGL_1 + h_p - h_L - h_e$ or $620 = 520 + 179.19 - 77.64 - 1.55$ (check this!)

Note: We assume the pump is very close to the tank on the left, so that the head losses on the pipe connecting it with the pump are ignored.