Hazen-Williams Equation

Instructions: To use the Hazen Williams formula, change the values in the yellow boxes.

$h_f = (10.434*L*Q^{1.85})/C^{1.85}*d^{4.8655})$

where:

		INPUT:	
h_f = head loss in feet			
L = length of force main in feet	8	feet
Q = pump discharge rate in GPM	40	GPM
C = constant (150 for PVC pipe)	150	constant (do not change)
d = diameter of pipe in inches (can be actual or nominal; i.e., the difference is not critical to the calculation)	2	inches

Answer: h_f = 2.48E-01

2.48E-01 , L = 8' & d = 2"

1.01E+00 , L = 8' & d = 1.5"

2.44E+00 , L = 8' & d = 1.25"

7.24E+00 , L = 8' & d = 1"

2.93E+01 , L = 8' & d =0.75"

1.83E+00 , L = 6' & d = 1.25"

1.81E+00 , L = 2' & d = 1"

3.64E+00 , TOTAL Head Loss (in feet)