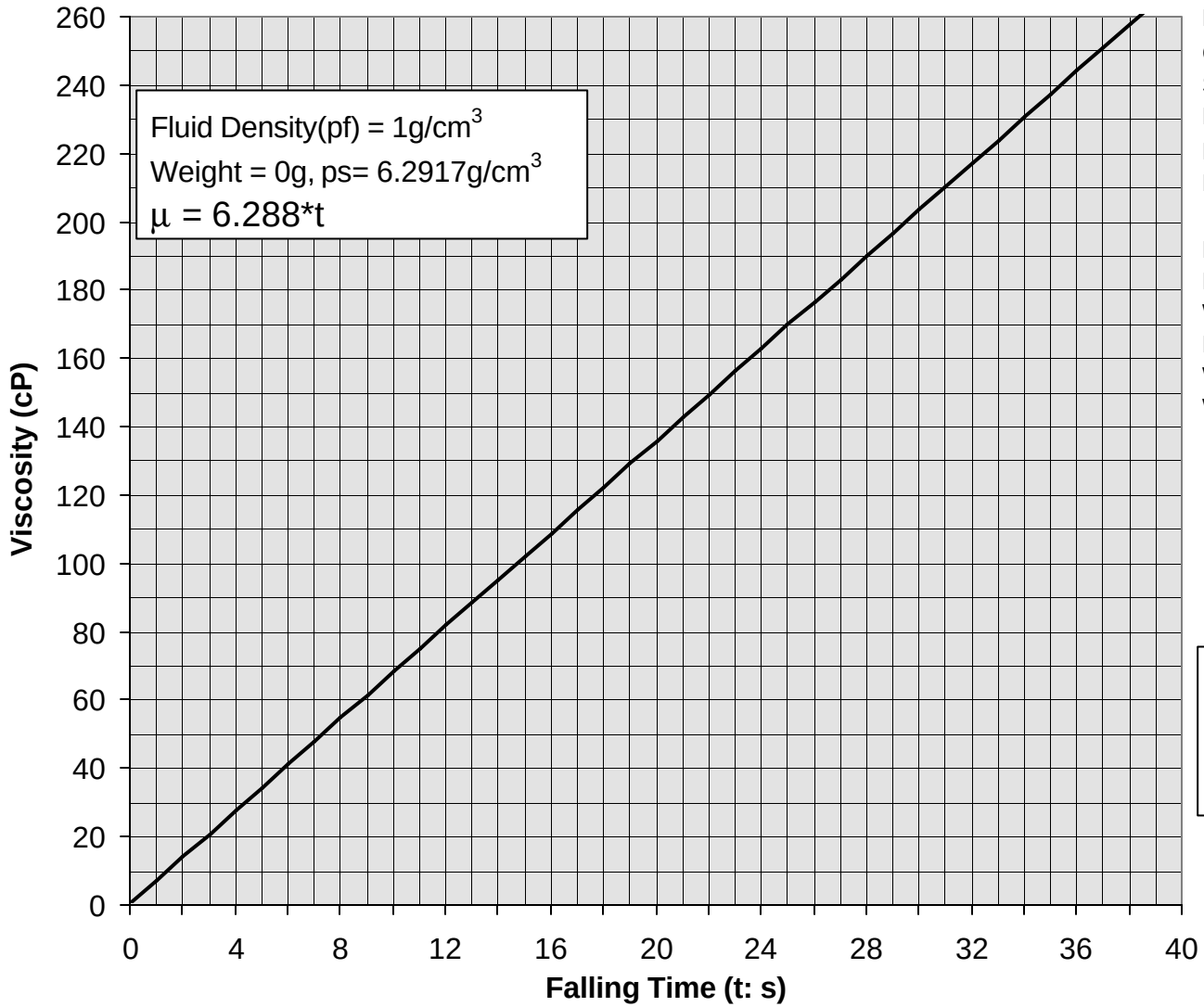
Viscosity(cP) vs. Falling Time(t: s) for 0.90cm Diameter Needle (5 to 250 cP)



Falling length = 1.8cm
G = 45,825.9 1/cm^2
System diameter = 0.9718cm
Needle diameter = 0.8972cm
Needle volume = 1.2860cm^3
Bar volume immersed
= 0.1487cm^3
Needle length = 2.315cm
Needle weight = 3.5844g
Weight holder = 0.8098g
Extension bar = 4.6325g
Weight 1 = 49.3281g
Weight 2 = 99.0973g

If the fluid density(pf) is not 1g/cm^3, use the following eguation.

$\mu(cP) = 1.1883*(ps-pf)*t$

where ps = Needle Density(g/cm^3)
= (9.0267+Weight(W))/1.4347