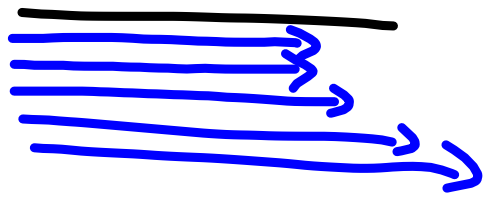
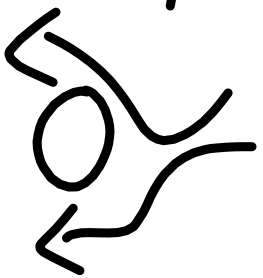
H_2O in a pipe

$$Re = \frac{\text{Inertial Viscosity}}{\text{Kinematic Viscosity}}$$

↳ cannonball





$$F_D = \frac{1}{2}\rho A C_D V^2$$

$$F_D = bV^2$$

$$\ln(mg) = \ln(bv^n)$$

$$\ln(mg) = \ln(bv^n)$$

$$\ln(b) + \ln(v^n)$$

$$\ln(mg) = \ln(b) + n\ln(v)$$

$$\ln(mg) - \ln(b) = n\ln(v)$$

$$\ln\left(\frac{mg}{b}\right) = n\ln(v)$$