Reading Assignment for September 30 Sections 5.5 and 5.6

5.5 Friction

- Here's where we learn about the simple model for kinetic and static friction.

- Static friction is tricky - it can grow in strength.

- The static friction has a maximum magnitude that is proportional to the magnitude of the normal force.

- Also, the material types determine the maximum amount of static friction. We quantify this by using the coefficient of static friction, μ_s.

- The equation, $f_{s,max} = \mu_s n$ can only be used in problems where the static friction is guaranteed to be at its maximum value.

- Kinetic friction is much easier. Its magnitude is mostly constant and is given by the equation $f_k = \mu_k n$.

- I tend to ignore rolling friction. It's usually quite small. But do pay attention to the fact that the friction that makes wheels roll forward is static friction.

5.6 Drag

- This is some good stuff here, especially how drag depends on the speed squared of an object, but it's a little too much for us. Covering everything else will take more than enough time already, so read this for your personal education.