Friction is a contact force that resists motion.

\[ F_f = \mu \cdot N \]

\( F_f \) \( \rightarrow \) Friction Force in Newtons
\( \mu \) \( \rightarrow \) Coefficient of friction (No units)
\( N \) \( \rightarrow \) Normal Force in Newtons

According to our equation, the greater the normal force, the greater the Frictional Force.

\( \mu \) or "\( \mu \)" is a rating of how well two surfaces will slide together.

Generally:
- Slides well \( 0 < \mu < 4 \)
- Slides poorly

\( \mu_s \) \( \rightarrow \) Static friction (not moving)
\( \mu_k \) \( \rightarrow \) Kinetic friction (moving)

For any object \( \mu_s > \mu_k \)

In other words, when two objects are pressed together more strongly, it will be harder to slide them against each other.

Enhance!! by changing these to be smoother, less friction will result.
a force of 22 N pulls a 2 kg block at a constant speed. what is the frictional force? what is $\mu_k$?

\[ F_f = \text{pull} = 22 \text{N} \]

\[ \mu N = \text{pull} \]

\[ N - W = 0 \quad \Rightarrow \quad N = W \]

\[ \mu \cdot W = \text{pull} \]

\[ \mu \cdot m \cdot g = 22 \]

\[ \mu = \frac{22}{2 \cdot 9.8} \]

\[ \mu_k = 1.12 \ (\text{no units}) \]

be careful with $\mu_s$. it can never cause a net force, it is only able to resist force...