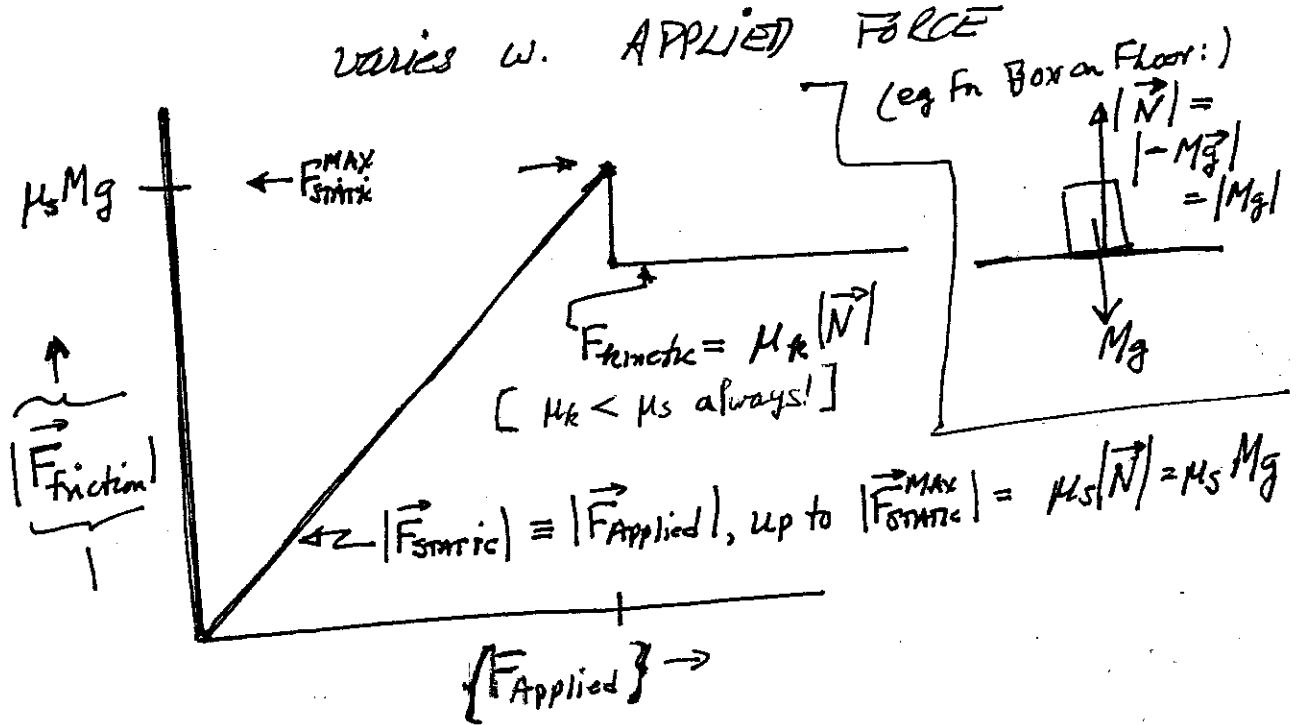


PLOT how force of FRICTION

varies w. APPLIED FORCE



MAGNITUDE of FRICTIONAL FORCE:

OBJECT at REST } $|\vec{F}_{static}| = |\vec{F}_{Applied}| \leq \mu_s |\vec{N}| = \mu_s Mg = |\vec{F}_{static}^{MAX}|$

OBJECT SLIDING } $|\vec{F}_{kinetic}| = \mu_k |\vec{N}| = \mu_k Mg (< \mu_s Mg, \text{ always})$

ONCE $|\vec{F}_{Applied}|$ exceeds $|\vec{F}_{static}^{MAX}|$,

Object begins to slide

and to ACCELERATE by NII ,

Since NET FORCE = $\vec{F}_{Applied} - \vec{F}_{kinetic} > 0$.