## Test 5 Helpful Info

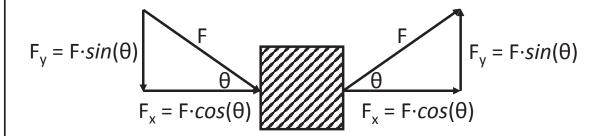
$$F_g = m \cdot g = weight$$

$$\Sigma F_x = m \cdot a$$

$$\textbf{F}_{\text{fs}} = \textbf{F}_{\text{N}} \cdot \boldsymbol{\mu}_{\text{s}}$$

$$F_{fk} = F_N \cdot \mu_k$$

- 1. Resolve the vectors.
- 2. Draw Free Body Diagrams (FBD).
- 3. Write the net force equations.
- 4. Plug in numbers and solve for normal force  $F_N$ .
- 5. Determine if the object will move. Is the force applied greater than the static frictional force  $(F_x > F_{fs})$ ?
- 6. Use  $F_x$  and kinetic frictional force  $(F_{fk})$  to solve for ax.



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