

Name: \_\_\_\_\_

# Forces acting on a Lawn Mower

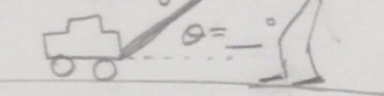
## Lawn Mower Unique Solutions Activity

Report answers to two decimal places.

ID #: \_\_\_\_\_

Initial Velocity: 20 m/s

mass \_\_\_\_\_ kg



Push force: \_\_\_\_\_ N  $g = 10 \text{ N/kg}$

Assume constant velocity for parts A to E.

\* Begin by drawing an appropriate force diagram below.

- What is the horizontal component of the push force?
- What is the vertical component of the push force?
- What is the magnitude and direction of force friction?
- What is force gravity?
- What is the normal force acting on the mower?
- What is  $\mu$ ?  $F_{\text{friction}} = \mu F_N$