

A mover uses a ramp to load a crate of nails onto a truck. The crate, which must be lifted 1.4 m from the street to the bed of the truck, is pushed along the length of the ramp. If the ramp is 4.6 m long and friction between the ramp and crate can be ignored, what is the **mechanical advantage** of the ramp?



Suppose you need to remove a nail from a board by using a claw hammer. What is the input distance for a claw hammer if the output distance is 2.0 cm and the **mechanical advantage** is 5.5?

WARM UP