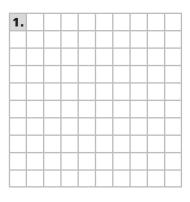
Forces and the **Laws of Motion** 

## **HOLT PHYSICS Diagram Skills**

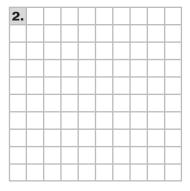
## Changes in Motion

A large, square box of exercise equipment sits on a storeroom floor. A rope is tied around the box. Assume that if the box moves along the floor, there is a backward force that resists its motion.

1. Suppose that the box remains at rest. In the space provided, draw a freebody diagram for the box. Label each force involved in the diagram.



**2.** Suppose a warehouse worker moves the box by pulling the rope to the right horizontal to the ground. In the space provided, draw a free-body diagram for the box. Label each force involved in the diagram.



**3.** Suppose the warehouse worker moves the box by pulling the rope to the right at a 50° angle to the ground. In the space provided, draw a freebody diagram for the box. Label each force involved in the diagram.

