

Name: _____

Warm-Up

Isa is pulling an 14 kg cart that has a 8 kg box on it with force of 60N to the right. The coefficient of friction μ between the cart and the floor is 0.18

- a. Draw a free body diagram

- b. What the force of friction?

- c. What is the cart's acceleration?

- d. If Sunyda wants to help Isa pull the cart so that it has an acceleration of 2 m/s^2 What force does Sunyda need to pull with?

Name: _____

Newton's Second Law Practice Problems

1. A 75kg luggage is being pushed with a force of 75N across the conveyor belt. The coefficient of friction between the material of the luggage and material of the conveyor belt is 0.2. What is the luggage's acceleration?

2. Net force is always... (explain your answer)

 - a. Equal to the force applied
 - b. Equal to all the forces added up
 - c. Only measurable when an object is in equilibrium
 - d. Both b and c
 - e. Both a and c

3. David Ortiz has a mass of 104kg. He glides along the turf as he slides to home plate with a force of 100N. If the coefficient of friction between the turf and David Ortiz's clothes is 0.4, what was his acceleration?