Newton's Laws

Physics – Mr. Hall

WORKSHEET #2

Name: _____

1. You push a 2.0 kg book across the top of a table at a constant speed. The μ (coefficient of friction) for the book and table is 0.15. (a) How much frictional force is there resisting you as you push on the book? (b) How much force do you have to push the book with to maintain a constant speed?

2. You apply 50.0 N of force to a 10.0 kg object. Assuming there is no friction, how fast would the object be going after 4.0 seconds?

3. What is the mass of a tiger that has a weight of 1950 N?

4. If it takes 100.0 N of force to push a 50.0 kg penguin across the ice at a constant speed, what is the coefficient of friction between the penguin and the ice?

5. Milo has a mass of 75 kg. On a planet where his weight is 450 N, he tosses a ball into the air straight up with an initial speed of 15 m/s. (a) How long is the ball in the air? (b) How high does the ball go?