Newton's Laws 1

Name_____

Use 10 m/s/s for g (gravity)

1. What is the weight of a 25 kg hamster? (Weight = mg = mass x gravity)

2. A 25 kg hamster is sitting on the ground. What is the normal force on the hamster?

3. A 25 kg hamster is suspended from a rope. What is the tension force in the rope?

4. A force of 20 N acts on a 20 kg mass. What is the acceleration of the mass?

5. A force of 10 N acts on a 5 kg mass. What is the acceleration of the mass?

6. A force of 20 N acts on a 2 kg mass. What is the acceleration of the mass?

7. A force of 100 N acts on a 20 kg mass. What is the acceleration of the mass?

8. force acts on a 100 kg mass, causing it to accelerate at 10 m/s/s. How large is this force?

9. force acts on a 10 kg mass, causing it to accelerate at 10 m/s/s. How large is this force?

10. force acts on a 1 kg mass, causing it to accelerate at 5 m/s/s. How large is this force?