IB Physics

FA 4.1 - Newton's Second Law

Name_____

Show your work, round to about three total digits, circle your answers, and label them with units. Use the convention that up is positive.

1. What is the acceleration of a 4.39 kg mass if there is an net force of 12.5 N on it? (2.85 m/s/s)

2. What is the mass of an object that weighs 764 N on earth? (77.9 kg)

3. What net force would accelerate a 2.10 kg mass at 7.80 m/s/s? (16.4 N)

4. What net force would accelerate a 0.145 kg baseball from rest to 38.0 m/s in a distance of 0.985 m? (106 N)

5. If there is a net force of 42.0 N on a 3.60 kg mass, what time would it cover 37.0 m from rest? (2.52 s)