PHYSICS 121 QUIZ 7 10/18/2017

NAME: SECTION:

1. An astronaut is a short distance away from her space station without a tether rope. She has a large wrench. What should she do with the wrench to move toward the space station?

a) Throw it directly away from the space station.

b) Throw it directly toward the space station.

c) Throw it toward the station without letting go of it.

d) Throw it parallel to the direction of the station's orbit.

e) Throw it opposite to the direction of the station's orbit.

2. In a perfectly inelastic collision between a body of mass m_A moving at speed v_A and a body of mass m_B initially at rest, what is the ratio of final to initial kinetic energy for the system?

a) 2

b) 1

c) $\frac{m_A}{m_B}$

d) $\frac{m_B}{m_A}$

e) $\frac{m_A}{m_B+m_A}$

3. An 80kg man man running at 5m/s slides to a stop over a distance of 3m. Which of the following is closest to the magnitude of the average force exerted on the man in Newtons?

a) 333N

b) 667N

c) 167N

d) 1000N

e) 0N