

Name: _____

Date: _____

Period: _____

Newton's Laws in Gravity, the Movie

1. The space shuttle and the ISS are 100 kilometers apart (60 miles) if it takes 15 minutes to travel from one to the other, what is the astronaut's speed in miles per hour? Show your Math.
2. If Dr. Stone has a mass of 45 kilograms and moves through space at 20 meters per second, what is her Inertia (Momentum) when she arrives at the ISS? Show your Math.
3. A piece of debris from the Russian satellite has a mass of only 5 kilograms, but is moving at 20,000km/hr (5555M/S) What is its momentum? Show your Math.
4. If Dr. Stone pushes the Russian capsule (2800kg) with a force of 84000Newtons, how fast will the capsule accelerate? Show your Math.