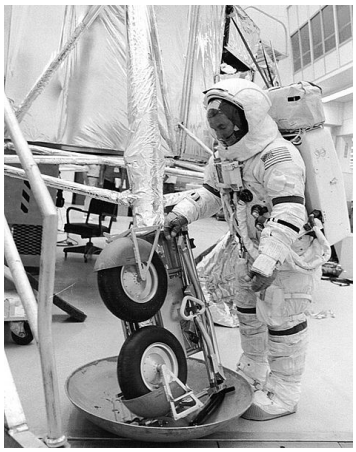
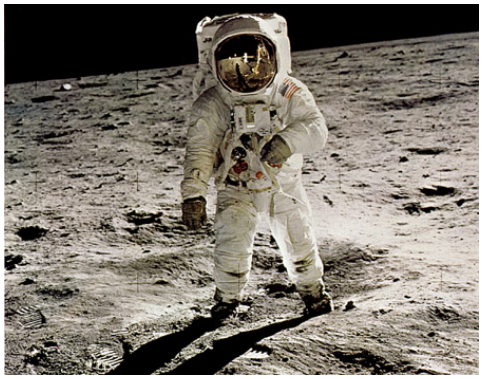
Mass versus Weight

An Apollo astronaut is wearing a space suit in the three scenarios below.

A. In the first photo, the astronaut is testing the suit on the surface of Earth.
B. In the second photo, the astronaut is using the suit on the surface of the Moon.
C. In the third photo, the astronaut is using the suit in outer space.

In each scenario, the motion of the astronaut is **not** changing.

1. Draw vectors representing the strength and direction of the forces acting on the astronaut in each scenario. Label the forces by name. Pay attention to the lengths of the arrows in each photo relative to arrow lengths in the other photos.
2. Describe in words how astronaut's mass in each scenario compares with the astronaut's mass in the other scenarios.

A		
B		
C