

1.

A man drops a baseball from the edge of a roof of a building. At exactly the same time, another man shoots a baseball vertically up toward the man on the roof in such a way that the ball just barely reaches the roof. Does the ball from the roof reach the ground before the ball from the ground reaches the roof, or is it the other way around?

2.

During aerobic exercise, people often suffer injuries to knees and other joints due to high accelerations. When do these high accelerations occur?