プレチャレンジ2014年11月の問題

英語で書かれた簡単な力学(摩擦)の問題です。摩擦の問題は複雑ですが、直感で考えて下さい。チャレンジでの問題は英語で書かれていませんが、世界を目指す君には英語は必須でしょう。

問題

In English, answer the following and give a reason.

When a player hits a high fly ball, which is assumed to be in vertical direction, how does the time the ball takes to reach its maximum height, t1, compare to the time the ball takes to return to the height at which it was hit, t2?

Choose an answer for each case:

- (i) there is no air resistance.
- (ii) there is air resistance.
- (a) t1 > t2
- (b) t1 = t2
- (c) t1 < t2