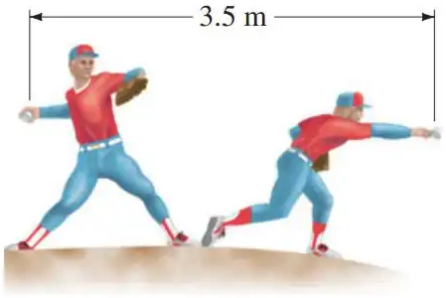
Task #1

A baseball pitcher throws a baseball with a speed of 43 m/s. Estimate the acceleration of the ball during the throwing motion. In throwing the baseball, the pitcher accelerates it through a displacement of about 3.5 m.



This problem is based on Ch 2, Problem 25 in Giancolli *Physics*, 7th ed.

Task #2

A world-class sprinter can reach a top speed of 11.5 m/s in the first 18.0 m of a race. What is the average acceleration of this sprinter? How long does it take her to reach that speed?

This problem is based on Ch 2, Problem 26 in Giancolli *Physics*, 7th ed.

Task #3

A car slows down uniformly from a speed of 28.0 m/s to rest in 8.00 s. How far did it travel in that time?

This problem is based on Ch 2, Problem 27 in Giancolli *Physics*, 7th ed.

Task #4

You are driving in a car going 26 m/s. All of a sudden, you see an obstacle in the road. Calculate the stopping distance of your car. Assume that your human reaction time is 0.40 seconds and the deceleration applied by the brakes is 3.0 m/s^2.

This problem is based on Ch 2, Problem 31 in Giancolli *Physics*, 7th ed.
