Modeling Shuttlecock Data

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Notebook to support Exercise 2.2.9, the fall of a shuttlecock with air resistance.

The data:

times = [0, 0.347, 0.47, 0.519, 0.582, 0.65, 0.674, 0.717, 0.766, 0.823, 0.87, 1.031, 1.193, 1. dists = [0, 0.61, 1.00, 1.22, 1.52, 1.83, 2.00, 2.13, 2.44, 2.74, 3.00, 4.00, 5.00, 6.00, 7.00,

A plot

scatter(times, dists)

Now use g = 9.8, take a guess at k (k=1 is a good start), plot d(t) from part (b), and compare to the data.