Physics 200 (Stapleton) Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Bungee Jumper Problems

1. Starting from rest, a **0.25kg** bungee-jumping object falls **2m** vertically before beginning to stretch its bungee. If the graph on the right shows the forces that are necessary to hold the bungee stretched at a variety of distances, how far will the falling object stretch the bungee before the object comes to rest? Assume that the object does not hit any other object (e.g. the floor). Solve the problem graphically, using the graph space below.



2. Starting from rest, a **0.5kg** bungee-jumping object falls **1.5m** vertically before beginning to stretch its bungee. If the graph on the right shows the forces that are necessary to hold the bungee stretched at a variety of distances, how far will the falling object stretch the bungee before the object comes to rest? Assume that the object does not hit any other object (e.g. the floor). Solve the problem graphically, using the graph space below.

