

Name:	
ID:	
Total Score (out of 10 pts):	

-4/10 points for attending-

**Question 1 (6/10 points)**

A pilot makes a nosedive recovery with a radius of 250 meters as shown below. The plane has a structural stability up to 5 g of acceleration. What should be the maximum speed of the plane during the recovery so that the plane can remain structurally intact? (You may assume  $g$  as 10 m/s, there is gravity of the earth.)

