AGRON 590 Fall 2014 Homework: Similarity theory Due Tuesday, November 4

Consider the following wind speed profile measured on a meteorological tower, under neutrally stratified conditions:

Height (m)	Wind speed (m/s)
2	3.1
5	3.8
10	4.5
20	5.0
50	5.7

Use these measurements to find the following values. Explain your methods in sufficient detail to follow your work.

- a. Roughness length.
- b. Friction velocity.
- c. Using your values from (a) and (b), estimate the wind speed at a height of 30 m.