

Assignment 6: Due to 4 pm, Oct 29, 2017

* Please name your homework file as 'Assignment6_Your name.pdf' in pdf format and send it at biostat_sjtu@163.com, thanks for your cooperation.

1. A student collected a large amount of demographic data from school children in a depressed area. Since this population was possibly malnourished, she was concerned that the children would have a hemoglobin level below the healthy average. The healthy average is 13 g/dL. She had collected a sample of size 127 children. Sample hemoglobin levels: Mean = 11.7 g/dL, Standard deviation = 1.2 g/dL
Please run a hypothesis test comparing the hemoglobin levels in her sample population to the healthy average value.
2. Under what circumstances must you use the Student t distribution instead of the normal distribution? Describe several characteristics of the Student t distribution, and find the 90th, 95th, and 99th percentile for the Student t distribution with 10 degrees of freedom.
3. Read blog and the related papers (if you need) about statistical p-value at <http://zhishifenzi.blog.caixin.com/archives/168557>, give your comments and points.