

Name: _____
MAT 222
Spring 2019
Quiz 5

*“There’s no advantage to hurrying
through life.”*

– Shikamaru, Naruto

Problem 1: A software developer is interested in analyzing the population proportion of doctors that use a certain medical software.

- (a) How many observations, i.e. what sample size, should be taken to estimate, at a 90% confidence level, the population proportion within $\pm 1\%$, if no prior estimate is available?
- (b) Redo the previous part if the developer has reason to believe that 53% of doctors use the software.
- (c) A random sample of 190 doctors was collected. Out of these, 85 doctors reported using the software. Find a 90% confidence interval for the proportion of doctors that use that particular software. Interpret your result.