

STAT 240 Homework 4

Rebecca Barter, Andrew Do, and Kellie Ottoboni

May 1, 2015

Problem (1)

We completed the code in file `hw4_functions.R`. For the dataset

$$X : -1.0, 1.7, -2.0, 0.6, 0.9, 3.5, \quad Y : 1.9, -0.3, 2.8, -0.7, 1.6, -2.4$$

we obtained the following p-values setting `L` to 1,000,000. The exact p-value for the sign test was 0.65625.

	z Statistic	Wilcoxon Rank Sum	Paired z	Signed Rank
Normal Approximation	0.4505772	0.5319069	0.4625569	0.5
Permutation	0.454514	0.531657	0.455443	0.499427

Next, we use the dataset

$$X : 0.5, 2.4, -4.1, 5.9, 3.7, 3.6, \quad Y : 2.7, 0.8, 1.6, 5.7, 4.3, 0.3$$

We obtained the following p-values setting `L` to 1,000,000.

	z Statistic	Wilcoxon Rank Sum	Paired z	Signed Rank
Normal Approximation	0.6393479	0.5319069	0.6826982	0.6625066
Permutation	0.626417	0.531804	0.626229	0.655774

The p-value for the sign test was 0.65625.