

Name:

Quiz 16, Attempt 1

Five students take an IQ test. Three subjects were on placebo and two were on NZT when taking the test. Their scores are reported below. Use a non-parametric analog of the two-sample t-test in order to determine if NZT improves IQ. Specifically, test the null hypothesis that the distributions are identical against a two-sided alternative.

NZT	118 (5)	107 (3)	
Placebo	108 (4)	105 (2)	89 (1)

$$W_x = 8$$

1	2	3	4	5	W_x
x	x				3
x		x			4
x			x		5
x				x	6
	x	x			5
	x		x		6
	x			x	7
		x	x		7
		x		x	8
			x	x	9

$$p\text{-value} = 2 \cdot \frac{2}{10} = \frac{4}{10} = \boxed{\frac{2}{5}}$$