

15.33

Non parametric 12/12/06

Treatment

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
124 (9)	147 (20)	141 (17)	117 (4.5)
167 (26)	121 (7)	144 (18.5)	128 (10.5)
135 (14)	136 (15)	139 (16)	102 (1)
160 (24)	114 (3)	162 (25)	119 (6)
159 (23)	129 (12)	155 (22)	128 (10.5)
144 (18.5)	117 (4.5)	150 (21)	123 (8)
133 (13)	109 (2)		
<u>T₁ = 127.5</u>	<u>T₂ = 63.5</u>	<u>T₃ = 119.5</u>	<u>T₄ = 40.5</u>

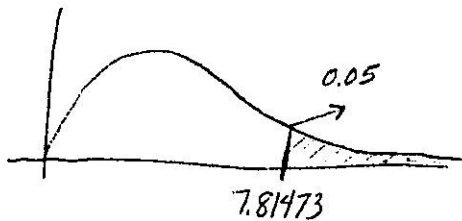
H₀: The 4 population distributions are identical.

H_A: Not H₀ (At least two of the 4 population distributions are not identical.)

$$H = \frac{12}{n(n+1)} \sum \frac{T_i^2}{n_i} - 3(n+1)$$

$$= \frac{12}{26(26+1)} \left(\frac{127.5^2}{7} + \frac{63.5^2}{7} + \frac{119.5^2}{6} + \frac{40.5^2}{6} \right) - 3(26+1)$$

$$= 13.9021164$$



Reject H₀ because 13.9021164 > 7.81473.

There is sufficient evidence to suggest at least 2 of the 4 population distributions are not identical.

1/5, 37

Nonparametric 12/12/06

✓

Campaign		
1	2	3
.33 (11.5)	.28 (6)	.21 (1.5)
.29 (7)	.41 (15)	.30 (8)
.21 (1.5)	.34 (13)	.26 (4)
.32 (10)	.39 (14)	.33 (11.5)
.25 (3)	.27 (5)	.31 (9)
$T_1 = 33$	$T_2 = 53$	$T_3 = 34$

H_0 : The 3 sampled population distributions are identical.

H_A : Not H_0 (At least two of the 3 sampled population distributions are not identical.)

$$H = \frac{12}{n(n+1)} \sum \frac{T_i^2}{n_i} - 3(n+1)$$
$$= \frac{12}{15(15+1)} \left(\frac{33^2}{5} + \frac{53^2}{5} + \frac{34^2}{5} \right) - 3(15+1)$$
$$= 2.54$$



Do not reject H_0 .

There is not sufficient evidence to suggest at least 2 of the 3 sampled population distributions are not identical.