

Stat 8680: Applied Nonparametric Methods

Assignment 5

- 1. Problem 10.9.** (page 317)
- 2. Problem 10.10.** (page 317-318)

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- 10.9 In a pharmacological experiment involving β -blocking agents, Sweeting (1982) recorded for a control group of dogs, cardiac oxygen consumption (MVO) and left ventricular pressure (LVP). Calculate the Kendall and Spearman correlation coefficients. Is there evidence of correlation?

Dog	A	B	C	D	E	F	G
MVO	78	92	116	90	106	78	99
LVP	32	33	45	30	38	24	44

- 10.10 Bardsley and Chambers (1984) gave numbers of beef cattle and sheep on 19 large farms in a region. Is there evidence of correlation?

Cattle	41	0	42	15	47	0	0	0	56	67	707
Sheep	4716	4605	4951	2745	6592	8934	9165	5917	2618	1105	150
Cattle	368	231	104	132	200	172	146	0			
Sheep	2005	3222	7150	8658	6304	1800	5270	1537			