

Task p. 28-1 / Anwendung S. 28-1

id	output	method	SS total $(y_{gk} - y_{\text{mean}})^2$	SS explained $(y_{g,\text{mean}} - y_{\text{mean}})^2$	SS not explained $(y_{gk} - y_{g,\text{mean}})^2$
	1	68	1	16	16
	2	77	1	25	16
	3	61	1	121	16
	4	67	1	25	16
	5	65	1	49	16
	6	70	1 mean	68	4
	7	79	2	49	1
	8	83	2	121	1
	9	62	2	100	1
	10	64	2	64	1
	11	72	2	0	1
	12	78	2 mean	73	1
	13	79	3	49	25
	14	78	3	36	25
	15	73	3	1	25
	16	76	3	16	25
	17	81	3	81	25
	18	75	3 mean	77	9
	19	75	4	9	4
	20	67	4	25	4
	21	68	4	16	4
	22	62	4	100	4
	23	72	4	0	4
	24	76	4 mean	70	16
mean total		72		968	276

df	G*K-1 23	G-1 3	G*(K-1) 20
----	-------------	----------	---------------

MSS total 42.09	MSS explained 92.00	MSS not explained 34.60
--------------------	------------------------	----------------------------

F	2.659
---	-------

Critical F-value, F-distribution alpha 10% and 3 and 20 degrees of freedom 2.38

F is larger than the critical value, we reject H0