

# Videregående Statistik og KeHaTools Kapitel 6: Multipel lineær regression

# Oversigt

- Kapitel 6.2      multipel lineær regression

# Multipel lineær regression - I

The screenshot shows a Microsoft Excel spreadsheet titled "FS\_Data.xlsx". The active cell is R3, containing the formula  $=O3-O2)/O2$ . The data table has columns labeled A through G. Column A contains row numbers from 1 to 25. Columns B through G contain various numerical values, likely representing car features and prices. The formula in R3 suggests a calculation involving columns O2 and O3.

	A	B	C	D	E	F	G
1	Nr	Pris	Alder	Kørte km	5 dørs	Metallak	Øst for
2	1	47.900		4 128.000	0	1	1
3	2	86.900		2 40.000	1	1	0
4	3	84.900	1	36.000	1	0	1
5	4	62.900	5	144.000	1	1	1
6	5	88.900	2	48.000	1	1	1
7	6	71.650	4	45.000	0	1	0
8	7	71.650	5	89.000	0	0	0
9	8	75.400	3	66.000	1	0	0
10	9	76.900	2	52.000	1	1	1
11	10	82.650	3	57.000	1	1	0
12	11	108.150	1	15.000	1	1	1
13	12	65.150	5	91.000	1	1	0
14	13	65.150	3	95.000	1	1	1
15	14	97.900	2	36.000	1	0	0
16	15	88.900	1	24.000	0	0	1
17	16	68.400	3	46.000	0	1	0
18	17	78.900	3	72.000	1	1	1
19	18	60.650	5	117.000	1	1	0
20	19	80.150	2	55.000	0	1	0
21	20	50.150	5	135.000	0	0	0
22	21	78.400	1	30.000	0	1	1
23	22	76.650	2	61.000	0	1	0
24	23	87.150	1	31.000	0	1	0
25	24	94.650	1	29.000	1	0	1

# Multipel lineær regression - II

Screenshot of Microsoft Excel showing the Data tab and Data Analysis dialog box.

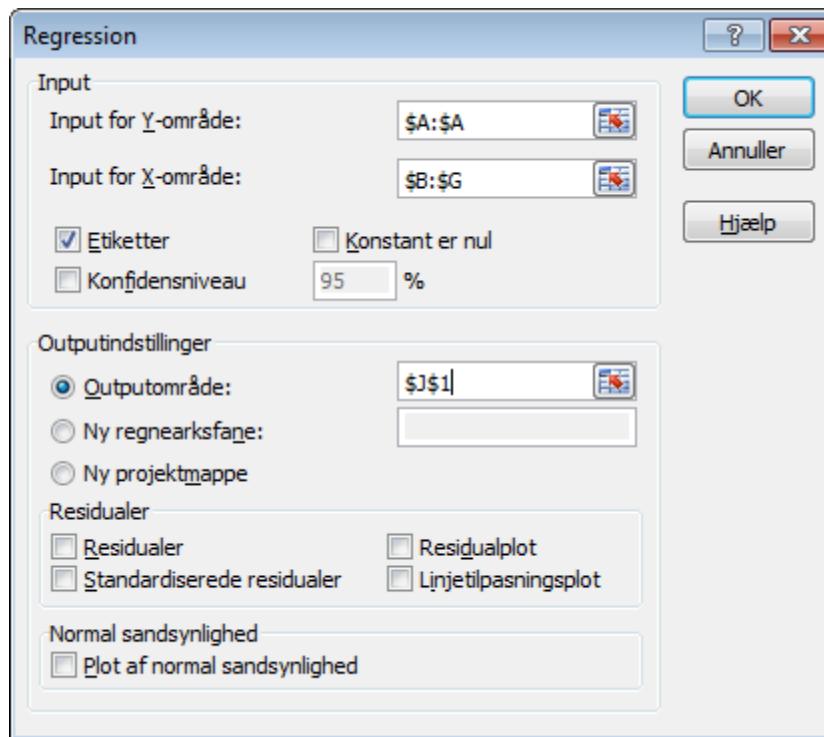
The Data tab is circled in red, and the Data Analysis button in the Data tab is also circled in red.

The Data Analysis dialog box is open, showing the Analyseværktøj (Analysis Tools) list. The "Regression" option is highlighted and circled in red.

Table data:

Nr	Pris	Alder	Kørte km	5 dørs	Metallak	Øst for
1	47.900	4	128.000	0	1	1
2	86.900	2	40.000	1	1	0
3	84.900	1	36.000	1	0	1
4	62.900	5	144.000	1	1	1
5	88.900	2	48.000	1	1	1
6	71.650	4	45.000	0	1	0
7	71.650	5	89.000	0	0	0
8	75.400	3	66.000	1	0	0
9	76.900	2	52.000	1	1	1
10	82.650	3	57.000	1	1	0
11	108.150	1	15.000	1	1	1
12	65.150	5	91.000	1	1	0
13	65.150	3	95.000	1	1	1
14	97.900	2	36.000	1	0	0
15	88.900	1	24.000	0	0	1
16	68.400	3	46.000	0	1	0
17	78.900	2	72.000	1	1	1

# Multipel lineær regression - III



# Multipel lineær regression - IV

The screenshot shows a Microsoft Excel spreadsheet titled "FS\_Data.xlsx - Microsoft Excel". The ribbon menu is visible at the top, with the "Data" tab selected. The main content area displays statistical results:

- RESUMEOUTPUT** (Rows 1-2)
- Regressionsstatistik** (Row 3)
 

Multipel R	0,400758
R-kvadreret	0,160607
Justeret R	-0,01306
Standardf	10,60423
Observati	36
- ANAVA** (Row 10)
- Summe af kvadrater (SQ)** (Row 11)
 

	fg	SQ	MK	F	signifikans F
Regressio	6	623,9586	103,9931	0,924797	0,491823
Residual	29	3261,041	112,4497		
I alt	35	3885			
- Koefficientet standardafvigelse** (Row 16)
 

	t-stat	P-værdi	Nedre 95%	Øvre 95%	ledre 95,0%	Øvre 95,0%		
Skæring	0,141819	31,86438	0,004451	0,996479	-65,0281	65,31179	-65,0281	65,31179
Pris	0,000287	0,000318	0,903362	0,373777	-0,00036	0,000937	-0,00036	0,000937
Alder	-3,82888	3,20346	-1,19523	0,241679	-10,3807	2,722933	-10,3807	2,722933
Kørte km	0,000153	0,000123	1,24006	0,224894	-9,9E-05	0,000405	-9,9E-05	0,000405
5 dørs	-3,9056	4,655995	-0,83883	0,408425	-13,4282	5,616981	-13,4282	5,616981
Metallak	0,167774	3,995471	0,041991	0,966794	-8,00388	8,33943	-8,00388	8,33943
Øst for	-3,81987	4,217221	-0,90578	0,372518	-12,4451	4,80532	-12,4451	4,80532