

Excel Functions

MATH 1441, BCIT

Technical Mathematics for Food Technology

November 20, 2017

Linear Regression

Open the file `linreg.xlsx`. These are the results of a mathematics aptitude tests and subsequent grades in a statistics class. Three students, Larry Nichols, Andrew Glosson, and Ronald Simpson ask you what grade they should expect to receive for their statistics class, given the evidence in their mathematics aptitude test (81%, 65%, and 52%, respectively).

Linear Regression Screen Shot 1

linreg.xlsx - Excel

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FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW JIVE ACROBAT

Clipboard Font Alignment Number Styles Cells Editing

Calibri 11

General

Conditional Formatting Format as Table Cell Styles

Insert Delete Format

Sort & Filter Find & Select

A1 Student

	A	B	C	D	E	F	G	H	I	J	K	L
1	Student	Mathematics Aptitude Test	Statistics Grade									
2	Mario Hilton	0.94	0.97									
3	Charles Cohn	0.79	0.77									
4	Emmett Lee	0.60	0.54									
5	Kenyatta Ford	0.59	0.46									
6	Jessica Harmon	0.85	0.91									
7	Mary Welch	0.89	0.85									
8	Terry Viens	0.98	0.95									
9	Jean Edgerton	0.78	0.63									
10	John Allegrini	0.97	0.92									
11	Frankie Cray	0.49	0.47									
12	Cheryl Cos	0.34	0.26									
13	Brenda Porterfield	0.78	0.79									
14	Doris Varner	0.69	0.67									
15	Vera Williams	0.82	0.77									
16												

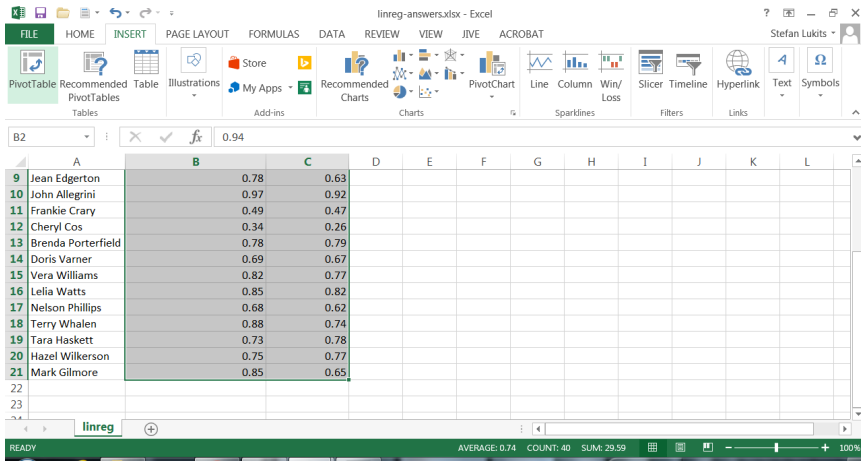
linreg

Attached
ThinkPad OneLink Pro Dock Attached!

READY

100%

Linear Regression Screen Shot 2



Linear Regression Screen Shot 3

linreg-answers.xlsx - Excel

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW JIVE ACROBAT

PivotTable Recommended PivotTables Tables Add-ins Store My Apps Recommended Charts Charts Sparklines Line Column Win/Loss Slicer Timeline Filters Hyperlink Links Text Symbols

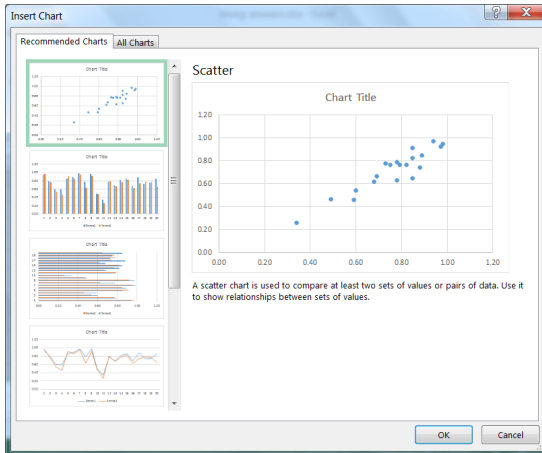
A1 Student

	A	B	C	D	E	F	G	H	I	J	K	L
1	Student	Mathematics Aptitude Test	Statistics Grade									
2	Mario Hilton	0.94	0.97									
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6	Jessica Harmon	0.85	0.91									
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11	Frankie Cray	0.49	0.47									
12	Cheryl Cos	0.34	0.26									
13	Brenda Porterfield	0.78	0.79									
14	Doris Varner	0.69	0.67									
15	Vera Williams	0.82	0.77									
16		0.85	0.83									

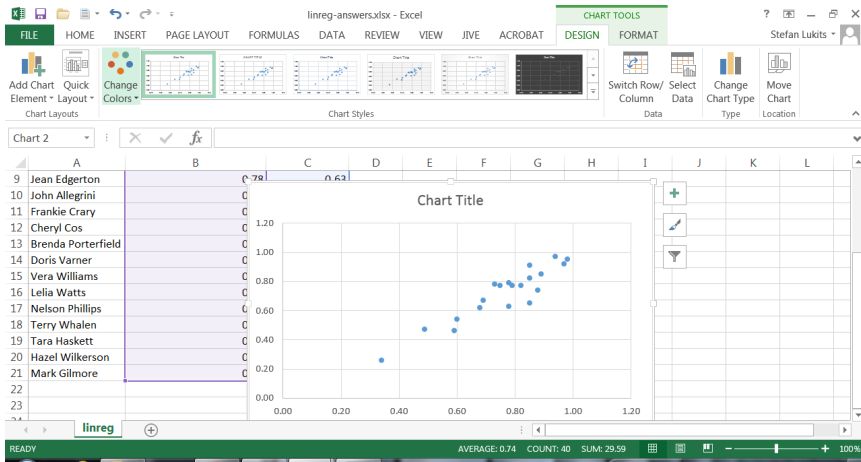
linreg

READY 100%

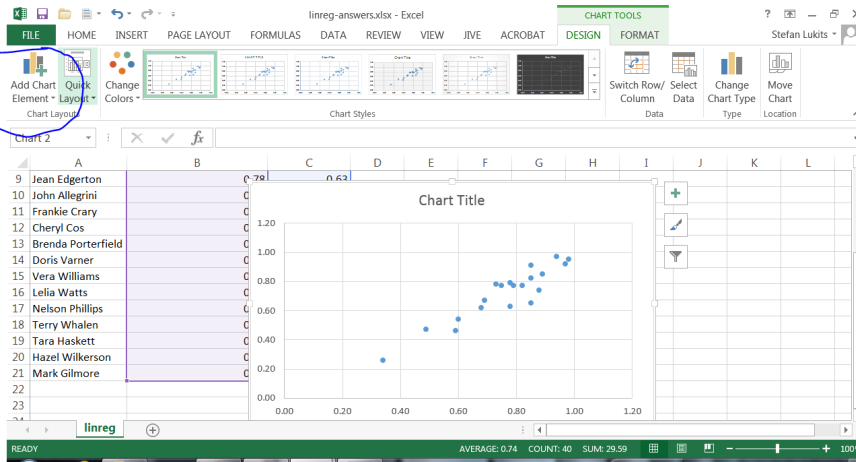
Linear Regression Screen Shot 4



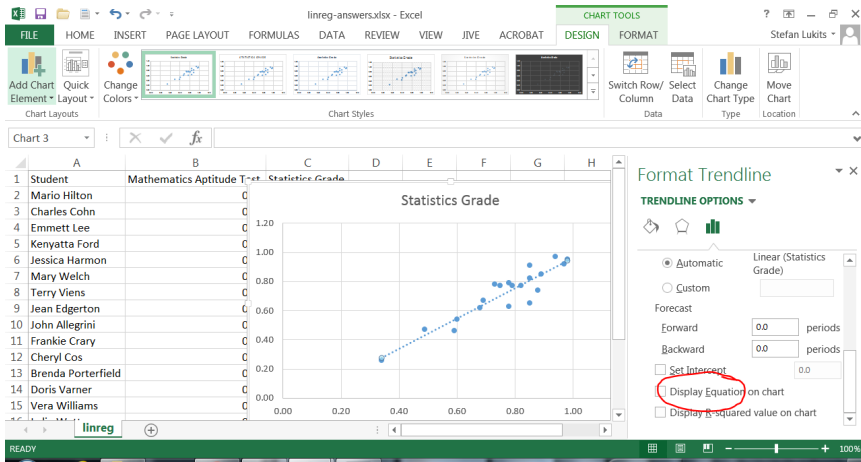
Linear Regression Screen Shot 5



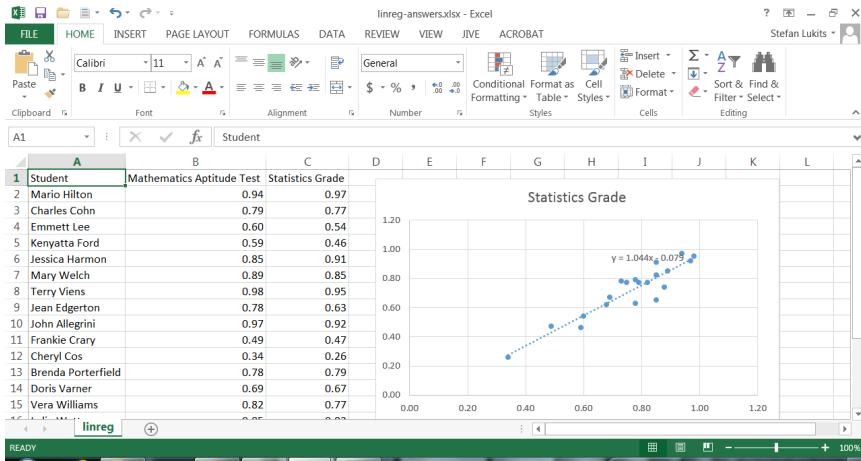
Linear Regression Screen Shot 6



Linear Regression Screen Shot 7



Linear Regression Screen Shot 8



Linear Regression Screen Shot 9

linreg-answers.xlsx - Excel

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	A	B	C	D	E	F	G	H	I	J	K	L
16	Lelia Watts	0.85	0.82									
17	Nelson Phillips	0.68	0.62									
18	Terry Whalen	0.88	0.74									
19	Tara Haskett	0.73	0.78									
20	Hazel Wilkerson	0.75	0.77									
21	Mark Gilmore	0.85	0.65									
22												
23	Larry Nichols	0.81										
24	Andrew Glosson	0.65										
25	Ronald Simpson	0.52										
26												
27												
28												
29												
30												

linreg

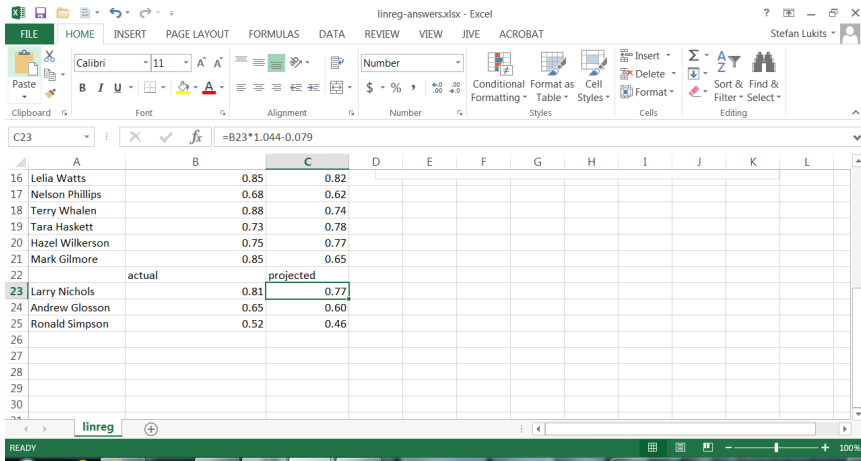
Linear Regression Screen Shot 10

The screenshot shows an Excel spreadsheet titled 'linreg-answers.xlsx'. The ribbon is set to 'FORMULAS'. The formula bar displays the formula $=B23*1.044-0.079$. The spreadsheet data is as follows:

	A	B	C	D	E	F	G	H	I	J	K	L
16	Lelia Watts	0.85	0.82									
17	Nelson Phillips	0.68	0.62									
18	Terry Whalen	0.88	0.74									
19	Tara Haskett	0.73	0.78									
20	Hazel Wilkerson	0.75	0.77									
21	Mark Gilmore	0.85	0.65									
22												
23	Larry Nichols	0.81	$=B23*1.044-0.079$									
24	Andrew Glosson	0.65										
25	Ronald Simpson	0.52										
26												
27												
28												
29												
30												

The formula bar shows the formula $=B23*1.044-0.079$. The spreadsheet shows data for rows 16-25. Row 23 is highlighted, and the formula in cell C23 is circled in red.

Linear Regression Screen Shot 11



End of Lesson

Next Lesson: Excel Projects