

## Statistics Assignments Using Excel<sup>®</sup> Assignment #6

Part I: Time to run 1-mile (in seconds) for students in a physical education class:

558	740	564	380	541
730	470	690	581	400
450	550	940	512	424
859	602	360	610	523
1199	390	410	455	323

1. Enter the raw data into a spreadsheet.
2. In a new column convert to  $z$  scores.
3. Compute the mean, sample standard deviation, sample variance, skewness, and kurtosis for each set of scores. Be sure the mean and sample standard deviation are what they are supposed to be!
4. Rename the sheet “mile times.”

Part II Data: Raw scores from a newly developed test of general mental ability (GMA).

94	75	54	90	66
84	81	78	88	74
61	72	46	81	78
83	99	87	84	70

1. Enter the data into a new spreadsheet.
2. Convert to  $z$  scores in a new column ( $M = 0$ ,  $SD = 1$ ).
3. Convert to T scores in a new column ( $M = 50$ ,  $SD = 10$ ).
4. Convert to IQ scores in a new column ( $M = 100$ ,  $SD = 15$ ).
5. Convert to ACT scores in a new column ( $M = 20$ ,  $SD = 5$ ).
6. Convert to SAT scores in a new column ( $M = 500$ ,  $SD = 100$ ).
7. Convert to “TAGLER” scores in a new column ( $M = 5150$ ,  $SD = 55$ ).
8. Compute the mean, sample standard deviation, sample variance, skewness, and kurtosis for each set of scores. Be sure you did everything correctly by checking the means and sample standard deviations of your new sets of scores!
9. Rename the sheet “GMA scores.”
10. Insert a textbox and respond to the following question: What do you notice about the skewness and kurtosis of the raw,  $z$ , T, IQ, ACT, SAT, and “TAGLER” scores? Explain this outcome.
11. Do a final save and submit your work.

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Microsoft Excel is a trademark of the Microsoft group of companies.

The following textbook contains detailed instructions for using spreadsheets in an introductory statistics class:  
Tagler, M. J. (2009). *Understanding basic statistics with spreadsheets*. New York, NY: Pearson Custom.