AMDM – Making Decisions from Cyclical Functions: Stock Market Activity

**Due Monday, February 26th at the Beginning of class**

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Directions:***

Research a company’s stock market summary graph. You need to find data over a year’s time (minimum of 10 data points). You may work with a partner or individually.

You will be graded on the following:

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| \_\_\_\_\_\_ | 1. Find and state a company’s stock market data from a reliable source over a year’s time. (Pick the 15th day of every month). |
| \_\_\_\_\_\_ | 1. Make a scatterplot of your 12 points of data (one for each month). |
| \_\_\_\_\_\_ | 1. Enter your data into a graphing calculator and make a comparison to your graph in #2. Find the model of best fit (sinusoidal regression) for your data. Round to 3 decimals. |
| \_\_\_\_\_\_ | 1. Based on your model of best fit, find the maximum and minimum values. Explain what each of these points means in context. |
| \_\_\_\_\_\_ | 1. Using your model, make a future prediction of at least two points. Write 2-3 sentences explaining why you think your future prediction is accurate/inaccurate. (Does your answer make sense). |
|  |  |
| \_\_\_\_\_ | 1. Write at least a five-sentence summary on what you found. Include the description of the company and why you picked that specific company. Would you buy (invest) stock in this company? Why or why not? Why does a stock market graph favor a cyclical function? |

Stock Market Company options:

1. Apple
2. Coca-Cola
3. eBay
4. Nike
5. Adidas
6. Target
7. Hershey’s
8. Samsung
9. Verizon
10. Delta
11. Southwest Airlines
12. Ford Motor Company
13. BMW
14. Tesla Inc.
15. Domino’s Pizza