** Mathematics Assignment 6**

**Stock Trends**

**Date:** Due

**Overview:**

For her 13th birthday, Hannah received some stock certificates from her grandmother. The chart shows how many shares Hannah has of each stock, and the starting value of each share the day the certificates were bought.

|  |  |  |  |
| --- | --- | --- | --- |
| **Company** | **Symbol** | **# of Shares** | **Start Value of each Share** |
| Canadian Pacific Railway Limited | CP | 20 | $42.00 |
| Royal Bank of Canada | RY | 20 | $115.60 |

**Preparation Work and Tasks:**

1. During one month, Hannah’s stocks changed in value as shown in the charts. What was the final value of each share of the two stocks? **(1)**

|  |  |  |
| --- | --- | --- |
| **End of Week** | **Value of CP** | **Value of RY** |
| **One** | $43.25 | $113.80 |
| **Two** | $42.20 | $109.90 |
| **Three** | $44.50 | $115.60 |
| **Four** | $47.40 | $115.40 |

1. What was the value of Hannah’s portfolio (both stocks) at the end of the month? **(1)**
2. Pick two stocks to make up your own portfolio. Find their current value in the newspaper or on the Internet. **(1)**
3. Make up a portfolio of 100 shares of one stock and 200 shares of the other stock. **(1)**
4. Use a chart to record the value of your portfolio. **(2)**
5. Record the value of each of your stocks every day for one week. **(2)**
6. Record the daily share price change for each stock. **(2)**
7. Calculate the overall change in value for your portfolio for each day. **(2)**
8. Calculate the average daily share price change for the week for each stock in your portfolio. **(2)**
9. Calculate the average change in the daily value of your portfolio over the week. **(2)**
10. Use the overall change in value in your portfolio for the week to calculate the average daily change in value. **(2)**
11. Why are the values in part “J” and “K” not the same. **(2)**

**Evaluation:**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Category** | **Level 4** | **Level 3** | **Level 2** | **Level 1** | **%** |
| Depth of Understanding | Demonstrates thorough understanding of concepts. | Demonstrates considerable understanding of concepts. |  |  | 20 |
| Problem Solving / Thinking | Use of procedure includes almost no errors or omissions. | Use of procedures is mostly correct, but there may be a few minor errors and / or omissions. |  |  | 20 |
| Application of Learning | Demonstrates sophisticated ability to make connections between mathematics learning and the real world. | Demonstrates considerable ability to make connections between mathematics learning and the real world. |  |  | 20 |
| Explanation and Justification of Concepts, Procedures, and Problem Solving | Provides thorough, clear and insightful explanations / justifications, using a range of words, pictures, symbols, and / or numbers. | Provides complete, clear and logical explanations / justifications, using appropriate words, pictures, symbols, and / or numbers. |  |  | 20 |
| Use of Mathematical Vocabulary | Uses a broad range of mathematical vocabulary to communicate clearly and precisely. | Uses mathematical vocabulary with considerable clarity and precision. |  |  | 20 |