Introduction to Motion-The Hare and the Tortoise Part II

**Use the graph below to answer Questions 1-8**

|  |  |
| --- | --- |
| **A (Tortoise or Hare?)** | **B (Tortoise or Hare?)** |
| **Position (m)** | **Time (s)** | **Position (m)** | **Time (s)** |
| 0 | 0 | 0 | 0 |
| 10 | 100 | 25 | 5 |
| 20 | 200 | 50 | 10 |
| 30 | 300 | 50 | Asleep |
| 40 | 400 | 50 | Asleep |
| 50 | 500 | 50 | Asleep |
| 60 | 600 | 50 | Asleep |
| 70 | 700 | 50 | Asleep |
| 80 | 800 | 50 | Asleep |
| 90 | 900 | 50 | Asleep |
| 100 | 1000 | 50 | Asleep |
| 110 | 1100 | 50 | Asleep |
| 120 | 1200 | 75 | 1490 |
| 130 | 1300 | 100 | 1495 |
| 140 | 1400 | 125 | 1500 |
| 150 | 1500 | 150 | 1505 |

**Questions:**

1. Which data set, A or B belongs to the hare? Explain. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. How long was the race course? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. How far away was the tree where the hare fell asleep from the finish line? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. How many minutes did it take the tortoise to run the race? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. How many minutes did the hare sleep? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. About how fast do you think the tortoise ran in m/s? (show calculation) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. How fast was the hare able to run? (show calculation) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. Create a graph of the Hare’s and Tortoise’s position vs. time based on the data provided.

**The following criteria for the graph must be met.**

* Title
* X and Y axis labeled with units and title as well as axis numbered
* The majority of the graph is used
* Lines are drawn with rulers
* Each graph (Hare and Tortoise) are labeled (Hint: create a legend)

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