**Question 3: (1 point)**

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| The Carbondale Hospital is considering the purchase of a new ambulance. The decision will rest partly on the anticipated mileage to be driven next year. The miles driven during the past 5 years are as follows.   |  |  | | --- | --- | |  |  | | **Year** | **Mileage** | |  |  | | 1 | 3,100 | | 2 | 4,000 | | 3 | 3,500 | | 4 | 4,000 | | 5 | 3,700 | |  |  | |  |  | | |
| **(a)** | Forecast the mileage for next year using a 2-year moving average.   \_\_\_\_\_\_\_\_\_\_\_\_  *Round your answer to the nearest whole number; for example,* 1234 . |
| **(b)** | Find the MAD for your forecast in part (a).   \_\_\_\_\_\_\_\_\_\_\_\_  *Round your answer to the nearest whole number; for example,* 123 . |
| **(c)** | Use a weighted 2-year moving average with weights of .4 and .6 to forecast next year’s mileage. (The weight of .6 is for the most recent year.) \_\_\_\_\_\_\_\_\_\_\_\_  *Round your answer to the nearest whole number; for example,* 1234 .   What is the MAD of this forecast? \_\_\_\_\_\_\_\_\_\_\_\_  *Round your answer to the nearest whole number; for example,* 123 . |
| **(d)** | Compute the forecast for year 6 using exponential smoothing, an initial forecast for year 1 of 3,100 miles, and http://phga.pearsoncmg.com/phga2/tmp/ca/fk/hh/joggaeldndhogeljbnhoboknpl.png \_\_\_\_\_\_\_\_\_\_\_\_  *Round your answer to the nearest whole number; for example,* 1234 . |