Quiz Ch6 #1 “AP Stats” NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Free Response**

*DIRECTIONS: You must show all work and indicate the methods you use. You will be graded on the correctness of your methods and on the accuracy of your final answers.*

A group of three friends are running in the 12th annual Mud Run. These runners will try to complete the 3 mile course as fast as they can. Each year the course is soaked with water and has tricky obstacles placed in places to make it tough on the runners. Assuming that the three friends individual times are independent, find the probability that the total team time is less than 105 minutes.

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| **Runner** | **Mean** | **StDEv** |
| Kevin | 29.3 | 3.1 |
| Tracy | 37.6 | 6.2 |
| Nick | 39.9 | 4.1 |