You homework scores were summed and then scaled to a maximum of 200, by multiplying the sum by 200/400. Call the result $HW$. The average $HW$ is 169, with a standard deviation of 16.

The average score on the midterms was 83 with a standard deviation of 14.4. Call your score $MT$.

The average score on the final exam is 161 with a standard deviation of 35. Call your score $FE$.

Your grade $GPA$ is computed from the formula

\[ S = (HW + MT + FE)/5 \]

\[ GPA = 3.6 + 0.05(S - 83) \]

The average value of $S$ is 83. Your grade should not be lower than the result of the above formula.