## AP Stat HW Section 2.1

p. 118
2) The standardized batting averages for the three hitters are Cobb $=4.15$, Williams $=4.26$, and Brett $=4.07$. All three hitters were at least 4 standard deviations above their peers' batting average, but Williams was the highest.
p. 121
6) a)

b) The mean is $4.896 \%$ and the standard deviation is $0.976 \%$. The five-number summary is: $\min =2.7 \%$, Q1 $=4.1 \%$, median $=4.8 \%, \mathrm{Q} 3=5.5 \%$, and $\max =7.1 \%$. The distribution of unemployment rate is somewhat symmetric with a center around $4.896 \%$. The spread is from $2.7 \%$ to $7.1 \%$. There are no gaps or outliers.
c) The unemployment rate for Illinois falls at the $84^{\text {th }}$ percentile. Illinois has one of the higher unemployment rates in the country --- $84 \%$ of the other 50 states have an unemployment rate equal to below Illinois' rate of $5.8 \%$.
d) Minnesota's unemployment rate of $4.3 \%$ falls at the $30^{\text {th }}$ percentile. The $z$-score for this rate is -0.61 .
e) OMIT
8) Larry should not be excited about being the $90^{\text {th }}$ percentile in this situation. About $90 \%$ of the men like Larry have identical or lower blood pressures.

