Due September 8, 2010, at the beginning of section

- Please show all your steps. No credit will be given for just giving the answer, without any supporting work.
- Grading: 3 points for a complete solution, 2 points for an almost correct solution, 1 point for some correct work, 0 otherwise

1. The age distribution of the U.S. population in 2000 is shown below. Draw the histogram. The class intervals include the left endpoint and not the right. The interval for " 85 and over" can be ended at 100 . Use your histogram to answer the following questions:
(a) Are there more children aged 7 or elders aged 77 ?
(b) Are there more people in the age group 15-19, or $35-39$ ?
(c) What percent of the population is over 65 ?
(d) The percents add up to $101 \%$. Why?

| Age | Percent of Population |
| :---: | :---: |
| $0-5$ | 7 |
| $5-15$ | 15 |
| $15-25$ | 14 |
| $25-35$ | 14 |
| $35-45$ | 16 |
| $45-55$ | 13 |
| $55-65$ | 9 |
| $65-75$ | 7 |
| $75-85$ | 4 |
| 85 and over | 2 |

2. In a certain statistics course, we tabulate the final exam scores. The table below gives the intervals for a histogram, and the heights of the bar (in percent per point). The left endpoint is included in each interval (nobody scored 100 points). Assuming that the scores are uniform within each interval, what score was the 80th percentile for this exam?

| Scores | $0-40$ | $40-60$ | $60-75$ | $75-90$ | $90-100$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Height | 0.25 | 1 | 2 | 2 | 1 |

3. Review Problem 7 from chapter 3 (on page 52).
