1. Katrina must take five exams in a math class. If her scores on the first four exams are $71,69,85$, and 83 , what score does she need on the fifth exam for her overall mean to be at least 90 ?
2. Todd Booth, an avid jogger, kept detailed records of the number of miles he ran per week during the past year. The frequency distribution below summarized his records. Find the mean, median, and mode of the number of miles per week that Todd ran.

| Miles Run <br> per Week | Number <br> of Weeks |
| :---: | :---: |
| 0 | 5 |
| 1 | 4 |
| 2 | 10 |
| 3 | 9 |
| 4 | 10 |
| 5 | 7 |
| 6 | 3 |
| 7 | 4 |

3. The mean salary of 12 men is $\$ 52,000$, and the mean salary of 4 women is $\$ 84,000$. Find the mean salary of all 16 people.
4. The frequency distribution below lists the results of a quiz given in Professor Gilbert's statistics class.

| Score | Number <br> of <br> Students |
| :---: | :---: |
| 10 | 5 |
| 9 | 10 |
| 8 | 6 |
| 7 | 8 |
| 6 | 3 |
| 5 | 2 |

a. Find the mean and standard deviation of the scores.
b. What percent of the data lies within one standard deviation of the mean?
c. What percent of the data lies within two standard deviations of the mean?
d. What percent of the data lies within three standard deviations of the mean?
e. Draw a histogram to illustrate the data.
5. To examine the effects of a new registration system, a campus newspaper asked freshmen how long they had to wait in a registration line. The frequency distribution is given below. Complete the frequency distribution and draw a histogram to illustrate the data.

| $x=$ time in |
| :---: | :---: |
| minutes | | number |
| :---: |
| of |
| freshmen |$|$| $0 \leq x<10$ | 101 |
| :---: | :---: |
| $10 \leq x<20$ | 237 |
| $20 \leq x<30$ | 169 |
| $30 \leq x<40$ | 79 |
| $40 \leq x<50$ | 51 |
| $50 \leq x<60$ | 63 |
|  | $n=$ |

6. The frequency distribution below summaries the hourly wages of the workers at ASU food service. Complete the frequency distribution and draw a histogram to illustrate the data.

| $x=$ hourly wage | number <br> of <br> employees |
| :---: | :---: |
| $\$ 4.00 \leq x<\$ 5.50$ | 21 |
| $\$ 5.50 \leq x<\$ 7.00$ | 35 |
| $\$ 7.00 \leq x<\$ 8.50$ | 42 |
| $\$ 8.50 \leq x<\$ 10.00$ | 27 |
| $\$ 10.00 \leq x<\$ 11.50$ | 18 |
| $\$ 11.50 \leq x<\$ 13.00$ | 9 |
|  | $n=$ |

