EXAMPLE 3 on p. 882
for Exs. 10-14
10. ERROR ANALYSIS Describe and correct the error in creating a histogram using the frequency table below.

| Ages | $0-9$ | $10-19$ | $20-29$ | $30-39$ |
| :--- | :---: | :---: | :---: | :---: |
| Frequency | III | 丹壮 |  | IIII |

## HISTOGRAMS Make a histogram of the data.

11. $55,82,94,75,61,69,77,98,81,83,75,90,51$
12. $12,0,22,31,14,7,7,45,31,28,21,25,25,18$
13. $0.01,0.13,0.09,1.10,1.33,0.99,0.50,0.95,1.05,1.50,0.75,1.01$
14. $111,109,224,657,284,120,119,415,180,105,208,108$
15. WRITING Explain why a histogram can show the distribution of the data below better than a stem-and-leaf plot.

$$
15,21,18,10,12,11,17,18,16,12,20,12,17,16
$$

16. CHALLENGE Create a stem-and-leaf plot that has the same distribution of data as the histogram shown. Explain the steps you took to create the stem-and-leaf plot.


## PROBLEM SOLVING

EXAMPLE 1
on p. 881
for Ex. 17

## EXAMPLE 3

on p. 882
for Exs. 18-19
17. HEIGHTS The heights (in inches) of players on a boys' basketball team are as follows: $80,76,81,69,81,78,74,68,78,74,81,72,69,81,70$. Make a stem-and-leaf plot of the heights.
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18. SURVEY A survey asked people how many 8 ounce glasses of water they drink in one day. The results are below. Make a histogram of the data.

$$
3,0,9,1,4,2,11,5,3,6,0,5,7,8,5,2,9,6,10,2,4
$$

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19. MEMORY A survey asked people how many phone numbers they have memorized. The results are shown in the table.

| Phone numbers | $1-5$ | $6-10$ | $11-15$ | $16-20$ | $21-25$ |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Frequency | 88 | 85 | 50 | 28 | 14 |

a. Make a histogram of the data.
b. What is the probability that a person surveyed, chosen at random, has 11-25 phone numbers memorized?

