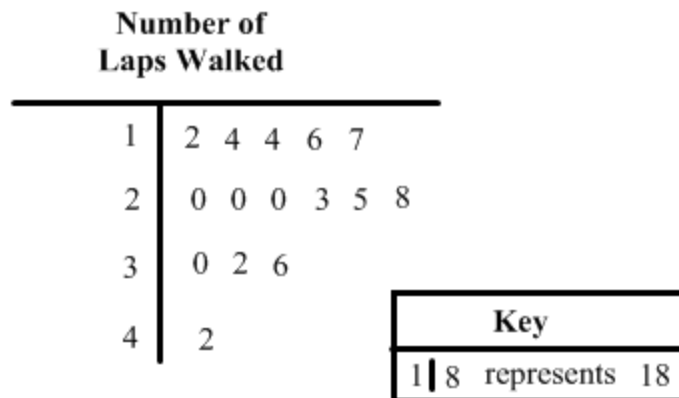




MCAS OLYMPICS

Event: Data Analysis Decathlon .

1. The stem-and-leaf plot below shows the number of laps walked by 15 students in a walk-a-thon.



What is the total number of students that walked more than 29 laps?

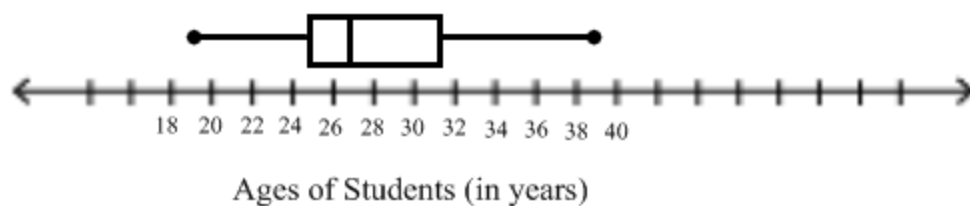
2. Tara wrote a set of three numbers.

- The mean of her set is 8.
- The range of her set is 14.

Which of the following could be Tara's set of numbers?

- a.** 2, 8, 14 **b.** 4, 6, 18 **c.** 2, 6, 16 **d.** 6, 8, 10

3. Ms. Simmons made the box-and-whisker plot below to show some of the statistics about the ages of the students in her class at a community college.



Which of the following best represents the median age of the students in her class?

- a.** 25 **b.** 27 **c.** 29 **d.** 31

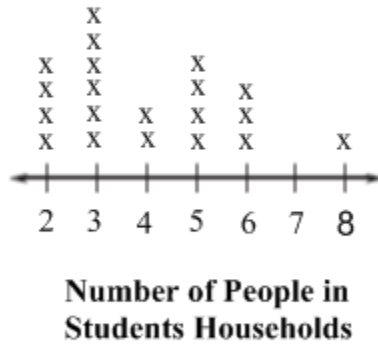
4. The scores Melanie earned on her first four mathematics tests are shown in the box below.

78, 82, 92, 94

Melanie earned a 92 on her fifth mathematics test. Which of the following measures does **not** change when her fifth test score is included?

- a.** range **b.** mode **c.** median **d.** mean

5. The line plot below shows the number of people in each student's household for a class of students.

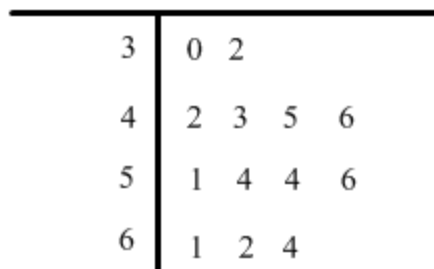


What is the mean number of people in households for this class of students?

- a. 3 b. 3.5 c. 4 d. 6

6. The stem-and-leaf plot below shows the number of people using a skateboard park on 13 different days.

Number of Skateboard Park Users



Key	
4 3	represents 43

What is the range of the data in the stem-and-leaf plot?

- a. 29 b. 31 c. 32 d. 34

7. The stem-and-leaf plot below shows the ages of the people who bought skateboards at a store during a sale.

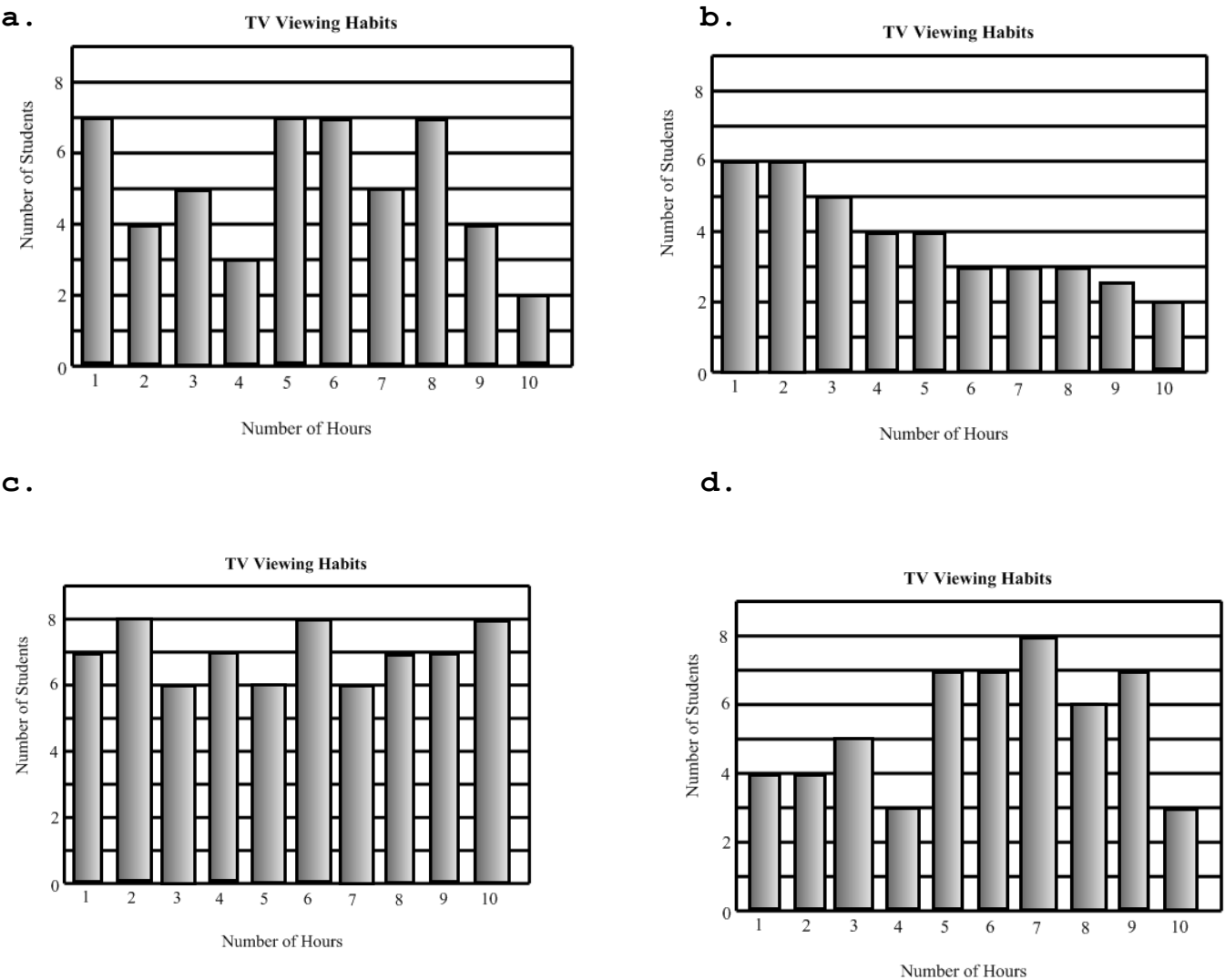
Ages of People	
Stem	Leaf
1	1 3 4 5 5 6 6 6 8
2	0 1 7 8
3	9
4	3 6
5	
6	5 5
7	1

Key

6 | 2 represents 62

What is the range of ages of people who bought skateboards during the sale?

8. Which bar graph below shows a mode of 7 hours of television viewed per week?

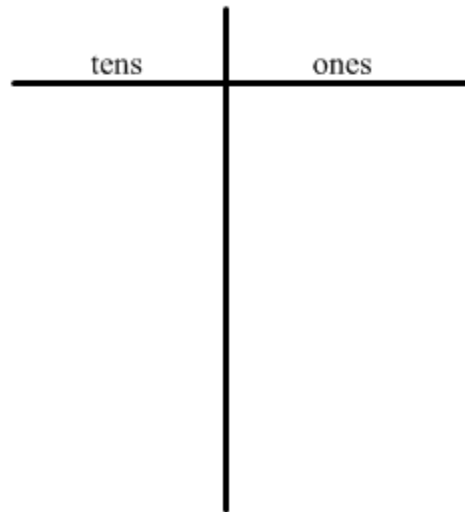


9. The individual weights, in pounds, of the members of a school's wrestling team are shown in the box below.

180	163	165	165
171	177	191	168
180	203	196	175
162	155	178	195

a. What is the range of the weights? Show or explain how you got your answer.

b. Use the diagram to make a stem-and-leaf plot of the data above. Be sure to title your plot and provide a key.



c. What is the median weight for the data in your stem-and-leaf plot from part (b)? Show or explain how you got your answer.

10. Glenn bowls in a bowling league every Saturday morning. Last Saturday, the scores from Glenn's first 3 bowling games were 141, 128 and 157.

a. What is the mean of the scores from Glenn's first 3 games? Show or explain how you got your answer.

b. Glenn will bowl a fourth game. What will he have to bowl in his fourth game to have a mean of 150 for the 4 games? Show or explain how you got your answer.

c. Each player in Glenn's bowling league is given a handicap, which allows players of different abilities to compete equally. A player's handicap is determined with the following formula.

A player's handicap is equal to 80 percent of the difference between the player's average (mean) and 220.

Miguel is Glenn's teammate. If Miguel's average (mean) is 130, what is his handicap? Show or explain how you got your answer