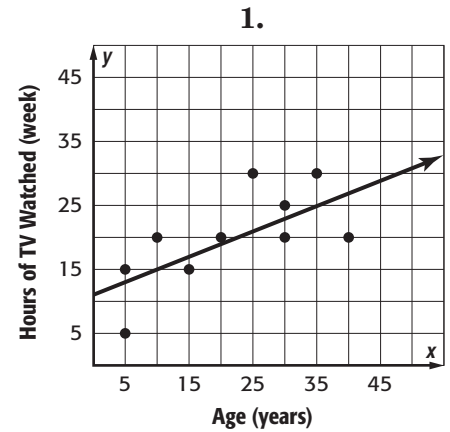


# Test, Form 3A

For Exercises 1–5, use the table below. The table shows the amount of television watched by a group of people.

Age (years)	Hours of TV Watched per Week
5	5
5	15
10	20
15	15
20	20
25	30
30	20
30	25
35	30
40	20



- Construct a scatter plot of the data.
- Interpret the scatter plot based on the shape of the distribution.
- Draw and assess a line that seems to best represent the data on the scatter plot created for Exercise 1.
- Write an equation in slope-intercept form for the line of best fit.
- Use the line of best fit found in Exercise 4 to make a conjecture about the number of hours a 55-year-old would spend watching TV.

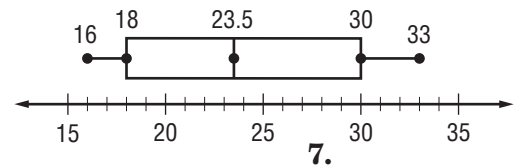
- Sample answer:  
The scatter plot shows a positive linear association with no clusters or outliers.
- Sample answer:  
Most of the points are close to the line.
  - Sample answer:  
 $y = 0.4x + 11$
  - 33 hours**

For Exercises 6 and 7, use the table below. The table shows the heights of plants in centimeters for a science fair project.

Plant Height (cm)					
16	16	29	20	33	17
24	31	25	33	23	19

- minimum: 16;  $Q_1$ : 18;  
median: 23.5;  $Q_3$ : 30;  
maximum: 33
- 

- Find the five-number summary of the set of data.
- Construct a box plot of the data.



# Test, Form 3A *(continued)*

8. A teacher surveyed the students in the cafeteria and found that 20 males like soccer while 5 do not like soccer. There were 30 females surveyed and 6 of them do not like soccer.
- a. Complete the two-way table summarizing the data.

8a, b.	Likes Soccer	Does Not Like Soccer	Total
Male	20; 0.80	5; 0.20	25; 1.00
Female	24; 0.80	6; 0.20	30; 1.00
Total	44	11	55

- b. Find the relative frequencies of students by rows. Round to the nearest hundredth if necessary. Write the answer in the table.

- c. Interpret the relative frequencies of students by rows.

- d. Does the data support the statement below? Justify your reasoning.  
*Girls do not like soccer.*

Sample answer:  
Most males and females like soccer.

8c. \_\_\_\_\_

No; Sample answer: 80% of girls like soccer so most girls like soccer.

8d. \_\_\_\_\_

For Exercises 9–12, use the table of quiz scores shown at the right.

Quiz Scores, Period 3					
25	13	16	30	27	22
19	22	15	28	27	29

9. Find the mean of the data.

9. 22.75

10. Find the mean absolute deviation for the data set. Round to the nearest tenth.

10. 4.9

11. Describe what the mean absolute deviation represents.

11. The average number of points each student's score is from the mean is 4.9.

12. The standard deviation of quiz scores is 5.6. Describe the quiz scores that are within one standard deviation of the mean.

12. Scores between 17.15 and 28.35.

13. Explain what symmetric means with respect to a data distribution.

13. When the distribution of a data set looks the same on both the right and left sides.