# SP.3 & 4 Quiz:

1. The equation $y = 0.95x + 3$ models the cost to ride in a taxi, where y is the total cost for a ride, and x is the number of miles driven. What does the slope of the line represent?

A. It costs $3.95 to ride in the taxi.   B. The flat fee to ride in the taxi is $3.
C. The cost per mile to ride in the taxi is $0.95.

2. The graph models the total cost of a health club membership over 6 months. The cost includes a one-time application fee and a monthly charge. Based on the graph, which statement best represents the data?

Club Membership Costs
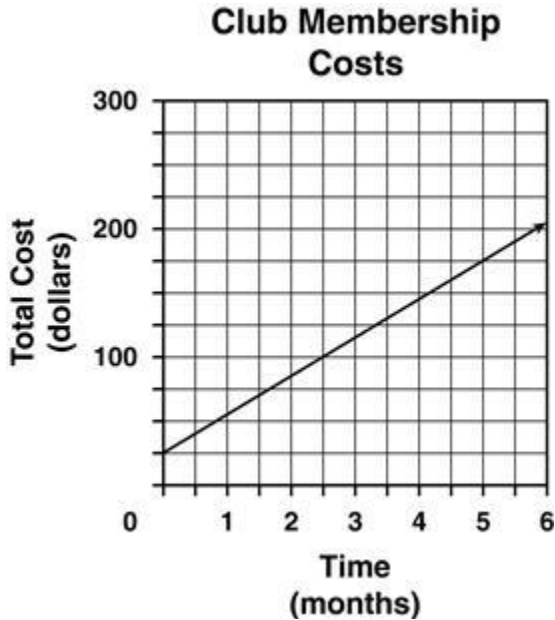
A. The application fee is $30, and the monthly charge is $25

B. The application fee is $25, and the monthly charge is $30.

C. The application fee is $25, and the monthly charge is $35.

D. The application fee is $50, and the monthly charge is $40

3. The graph shows the amount of money that cheerleaders raised each week over a period of six weeks. Using a linear model, *approximately* how much money will the cheerleaders raise in week 7?

Cheerleading Fundraising Event
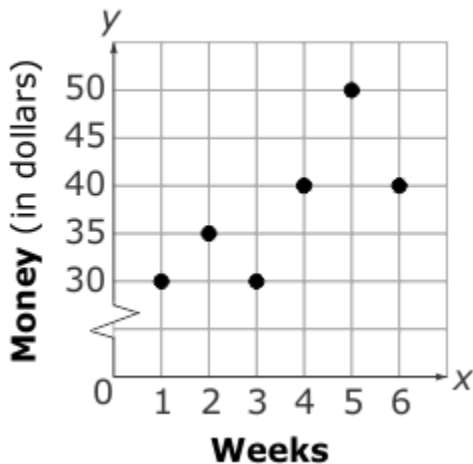
A. $40   B. $50

C. $60   D. $70

4. Anna measured the heights and arm spans of 10 students in her class. She created the scatterplot below. Based on the graph, what is the *approximate* arm span of a student who is 150 cm tall?

Arm Span of Human Beings
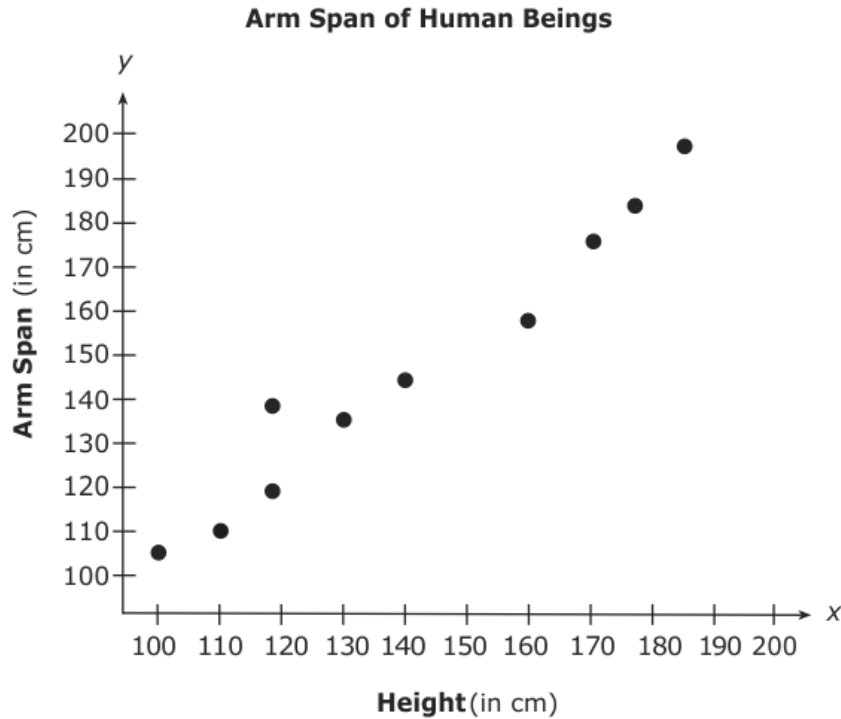
A. 130 cm

B. 150 cm

C. 170 cm

D. 190 cm

5. The graph models the relationship between the number of minutes the students of Mr. Bowen's class studied and their test scores on the final exam. Which statement best describes the rate of change for this relationship?

Test Scores
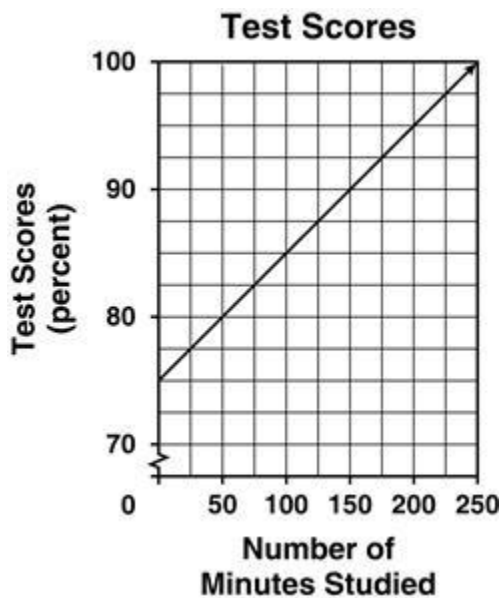
A. The student's scores increased 1 percent for every 10 additional minutes they studied.

B. The student's scores increased 10 percent for every additional minute they studied.

C. The student's scores increased 2 percent for every additional minute they studied.

D. The student's scores increased 1 percent for every 2 additional minutes they studied.

6. The scatterplot below displays the number of miles, *y*, Jackson ran over several weeks, *x*, while he was training for a competition. Which statement describes the *y*-intercept?

Jackson's Training Record
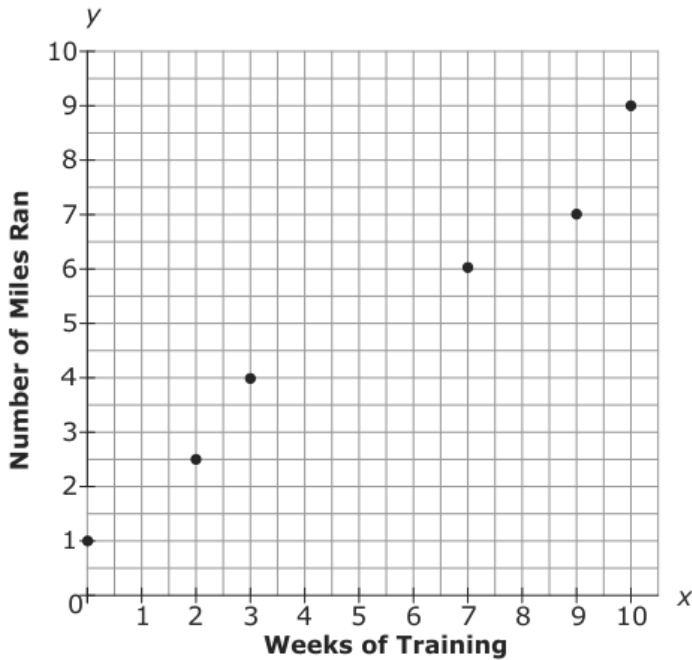
A. the number of miles Jackson ran after one week of training
B. the number of miles Jackson ran before starting his training
C. the increase in the miles Jackson ran each week
D. the decrease in the miles Jackson ran each week

7.   Tanya is growing her hair out. She records the length of her hair at the end of each month and plots the data in the graph below. The equation of a line that approximates the data is $y = \frac{1}{2}x + 12$.
Assuming she does not cut her hair, **about** how long can Tanya expect her hair to be after 8 months?

Hair Growth by Month
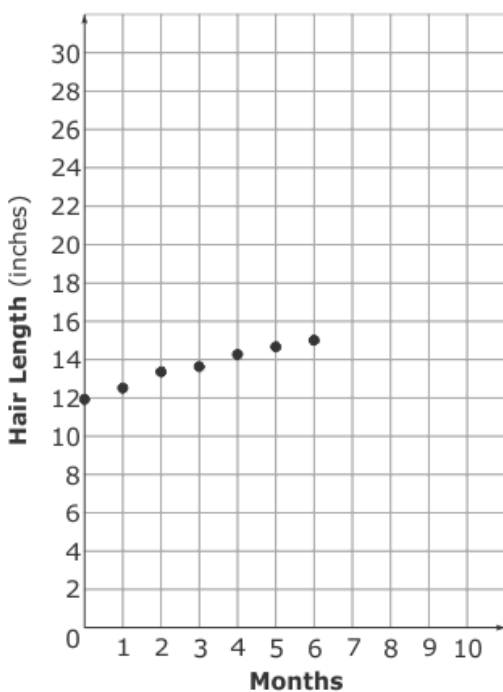
A.   14 cm

B.   16 cm

C.   20 cm

D.   28 cm

8. A family recorded and graphed the average temperature outside and compared it to the monthly heating bill each month. Based on this linear model, what is the expected heating cost if the average temperature outside was 35°F?
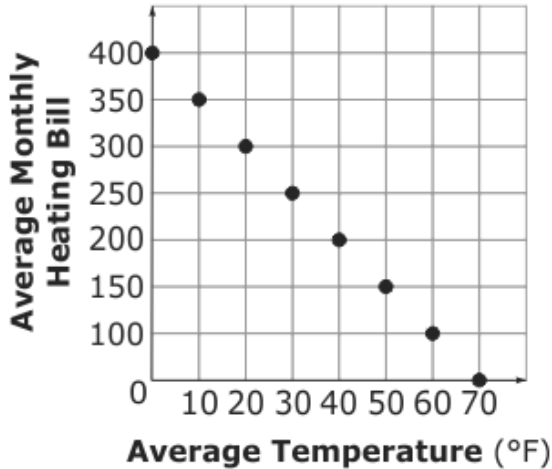
A. $75

B. $225

C. $350

D. $400

9. Several students were asked if they liked or disliked broccoli. Their responses are in the table below. Based on the table, which statement is true?

	Liked broccoli	Disliked broccoli
Males	34	38
Females	23	35

A. About 47% of those surveyed are male and liked broccoli.

B. About 18% of those surveyed are female and liked broccoli.

C. About 40% of those surveyed are male and disliked broccoli.

D. About 35% of those surveyed are female and disliked broccoli.

10. Samantha surveyed students about implementing a dress code at her school. The results of the survey are shown in the frequency table. What percent of seventh graders are against implementing a dress code?

Dress Code Survey

	For	Against	No Opinion	Total
Grade 6	12	15	3	30
Grade 7	5	21	4	30
Grade 8	4	24	2	30
Total	21	60	9	90

A.   17%   B.   23%   C.   35%   D.   70%

11. The manager of a school cafeteria randomly surveyed 50 boys and 50 girls about their favorite menu item on Friday. A relative frequency table shows the results of the survey. Based on the data, which statement must be true?

Food Survey

	Pizza	Salad	Hamburgers	Total
Boys	0.68	0.18	0.43	0.50
Girls	0.32	0.82	0.57	0.50
Total	1.00	1.00	1.00	1.00

A.   Exactly twice as many boys chose pizza as their favorite menu item as girls

B.   Twenty five more boys chose pizza as their favorite menu item over hamburgers

C.   Both boys and girls chose hamburgers as their favorite menu item more than pizza or salad combined.

D.   The percentage of girls that chose salad was more than four times greater than the percentage of boys that chose salad.

12.   A company counted the number of people who visited a restaurant over several days. Based on the chart, which statement is true?

	Weekday	Weekend
Child	221	187
Adult	179	148

A. More children than adults visited the restaurant.

B. Over half of the total people that visited the restaurant were adults.

C. More people visited the restaurant on the weekend than during the week

D. About 45% of the people that visited the restaurant on the weekend were children.

13. At a school, students were surveyed about their preference of ice cream flavor. The results are shown in the table below. Based on the table, *about* what percent of the students preferred Chocolate ice cream?

	Vanilla	Chocolate	Strawberry
7th Grade	58	62	30
8th Grade	38	79	45

A.   20%   B.   25%   C.   45%   D.   78%

14. A total of 130 seventh and eighth grade girls were asked whether they preferred to read fiction or poetry. The results of the survey are shown in the table below. What is the relative frequency of girls who prefer poetry?

	Fiction	Poetry	Total
Seventh Grade Girls	46	19	65
Eighth Grade Girls	33	32	65
Total	79	51	130

A. $\frac{19}{51}$

B. $\frac{51}{130}$

C. $\frac{65}{130}$

D. $\frac{32}{51}$

15.   The cafeteria manager of a school asked the 6th- and 7th-grade students which meat they preferred for lunch. The results of the survey are in the table below. Based on the table, which statement is true?

	Chicken	Turkey
6th grade	30	62
7th grade	42	34

A. More students preferred chicken than turkey.

B. More 7th-grade students preferred chicken than turkey.

C. More 6th-grade students preferred chicken than turkey.

16.   A bowling alley provides bowling balls with weights of 11, 12, 13, and 14 pounds. This information is shown in the table along with the number of bowling balls used by 120 student bowlers in Grades 6, 7, and 8. What fraction of student bowlers in Grade 7 used a 13-pound bowling ball?

Student Bowlers

Bowling Ball Weight (pounds)	Grade 6	Grade 7	Grade 8
11	20	10	0
12	9	15	11
13	6	20	4
14	5	5	15

A. $\frac{1}{6}$

B. $\frac{1}{5}$

C. $\frac{2}{5}$

D. $\frac{2}{3}$

17. Joseph surveyed the students in his class about their favorite subject and favorite sport. The table below shows the results of his survey. What is the relative frequency of the students in Joseph's class who like both math and swimming to the total number of students who like math better than English?

	English	Math	Total
Swimming	8	14	22
Basketball	7	10	17
Total	15	24	39

A. 0.63

B. 0.62

C. 0.58

D. 0.36