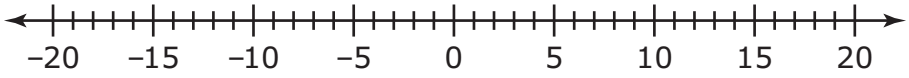
Section 1 (Calculator-Inactive)

Answer questions 1–20. Answer multiple-choice and multi-select problems on the Answer Form. Answer all other problems in your test booklet. You may not use a calculator.

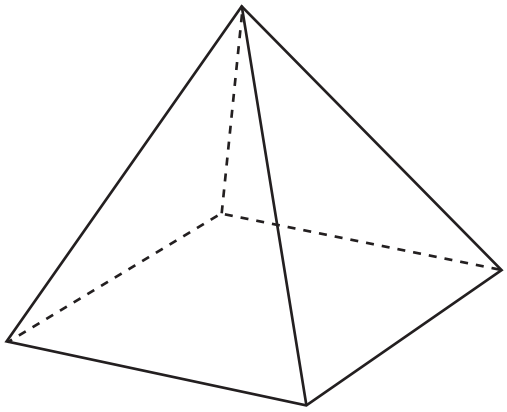
1

What number is located the same distance from −5 as 3 is? Plot the number on the number line below, and label it Point *A*.



2

A rectangular pyramid with a square base is shown below.



Draw the figure that results from slicing the pyramid with a vertical plane that goes through the vertex and is perpendicular to the base.

3

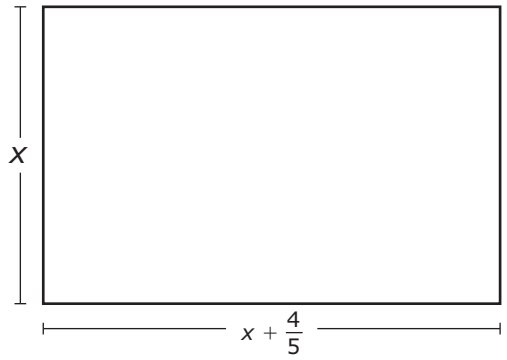
Josh wants to simplify the expression $(-8)(10 + (-5) + (-8))$. To get the fully simplified expression, Josh must multiply 10, -5, and -8 by some number and then add the resulting products.

By what number must Josh multiply?

Answer _____

4

The dimensions of the rectangle shown below are given in terms of x.



[not drawn to scale]

Part A

Write an expression representing the perimeter of the rectangle as the sum of the four side lengths.

Answer _____

Part B

Explain how the expression $2\left(2x + \frac{4}{5}\right)$ also represents the perimeter of the rectangle.

_____

_____

_____

Go On

5

Which shows the difference $\frac{14}{15} - \frac{5}{12}$ written as a decimal?

Ⓐ 0.15

Ⓑ 0.4

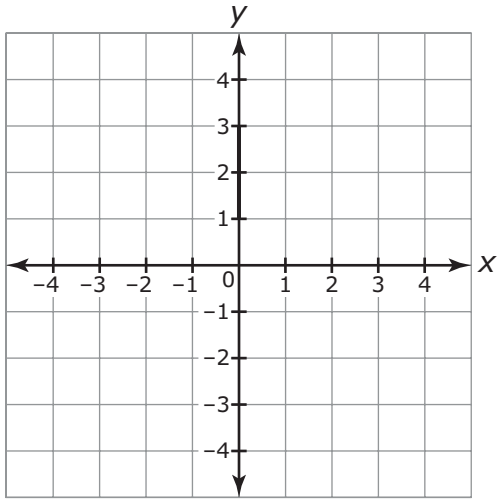
Ⓒ $0.51\overline{6}$

Ⓓ 3

6

Draw a figure with the following conditions on the coordinate grid below.

- The figure is a quadrilateral.
- The figure is symmetric about the *x*-axis.
- The figure has exactly one pair of parallel sides.
- Two side lengths are 4 units and 6 units.



7

Victoria is at an elevation of 150 feet. She hikes down to an elevation of 120 feet in 40 minutes. Then she hikes down to an elevation of 100 feet in 30 minutes.

Part A

What is her average rate of descent from 150 feet to 120 feet? What is her average rate of descent from 120 feet to 100 feet?

Answer From 150 feet to 120 feet: _____ feet per minute

From 120 feet to 100 feet: _____ feet per minute

Part B

What is her average rate of descent from 150 feet to 100 feet?

Answer _____ feet per minute

8

Select all the statements that are true about distances on a number line.

Ⓐ The distance between −7 and 9 on a number line is 16.

Ⓑ The distance between 8 and −3 on a number line is 11.

Ⓒ The distance between −5 and 15 on a number line is 10.

Ⓓ The distance between 12 and −2 on a number line is 14.

Ⓔ The distance between −4 and 16 on a number line is 12.

Ⓕ The distance between −18 and 4 on a number line is 22.

Go On

9

The low temperatures on New Year's Day in a city for 5 years are shown below.

$$2°F, -10°F, 7°F, 4°F, -13°F$$

What was the average low temperature on New Year's Day for the 5 years?

Ⓐ $-2.5°F$

Ⓑ $-2°F$

Ⓒ $0.6°F$

Ⓓ $4°F$

10

Rose went to a stationery shop. She purchased 2 packs of red pens, 4 packs of black pens, and 3 packs of blue pens. The cost of each pack of pens was \$2.50. The expression $\$2.50 \times 2 + \$2.50 \times 4 + \$2.50 \times 3$ represents the total amount of money she spent on pens. How can this expression be rewritten?

Ⓐ $\$2.50 \times 2 \times 4 \times 3$

Ⓑ $\$2.50 \times (2 + 4 + 3)$

Ⓒ $\$2.50 + (2 \times 4 \times 3)$

Ⓓ $\$2.50 + 2 + 4 + 3$

11

Mrs. Habib has 46.25 feet of ribbon to use for a border around a rectangular bulletin board in her classroom. The board is 3.75 feet tall and 8.25 feet wide. How many feet of ribbon will Mrs. Habib have left after she puts the border around the bulletin board?

Answer _____ feet

12

Sabine rode on a passenger train for 480 miles between 10:30 A.M. and 6:30 P.M. to visit a friend in a different city.

Part A

Calculate the train's average speed while Sabine was riding.

Answer _____ miles per hour

Part B

Sabine thought that the train traveled at an average speed of 64 miles per hour. She calculated her arrival time based on this speed. What time did she tell her friend that she would be arriving?

Answer _____ P.M.

Part C

While Sabine was on the train, did it ever travel faster than its average speed? Explain your reasoning.

_____

_____

_____

Go On

13

Uri constructed a triangle in his notebook with exactly one line of symmetry. Select all the sets of measurements that could be the lengths of the three sides of his triangle.

Ⓐ 8 cm, 8 cm, 18 cm

Ⓑ 9 cm, 9 cm, 9 cm

Ⓒ 9 cm, 12, cm, 12 cm

Ⓓ 10 cm, 12 cm, 14 cm

Ⓔ 10 cm, 10 cm, 19 cm

Ⓕ 12 cm, 12 cm, 24 cm

14

Charles wants to buy a book that is on sale for half off.

Let b represent the original price of the book, in dollars. The sales tax is 6% of the discounted price.

Which expression represents the price that Charles will pay for the book?

Ⓐ $0.515b$

Ⓑ $1.03b$

Ⓒ $0.53b$

Ⓓ $0.56b$

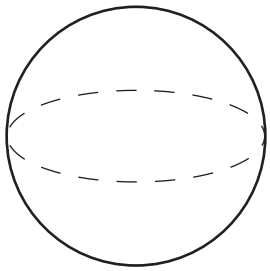
15

Kathy takes her cat to a veterinarian every year for a check-up. Last year, the difference in the cat's weight from the year before was −1.5 pounds. This year, the difference in its weight from last year is 0.75 pounds. What is the difference in the cat's weight from 2 years ago?

Answer _____ pound(s)

16

The sphere shown below has a radius measuring 5 inches.



Part A

Describe the cross section that would result from slicing the sphere through its center with a plane.

_____

_____

Part B

Describe the cross section that would result from slicing the sphere with a plane such that the plane does not pass through the center. How does the cross section compare to the cross section in Part A?

_____

_____

Go On

17

Ann opened a new savings account with an initial deposit of $250. Which combination would result in a zero balance in Ann's account?

Ⓐ Every week for 5 weeks, deposit $10 on Monday, Wednesday, and Friday, and withdraw $27.50 on Tuesday and Thursday.

Ⓑ Every week for 5 weeks, deposit $20 on Monday, Wednesday, and Friday, and withdraw $27.50 on Tuesday and Thursday.

Ⓒ Every week for 10 weeks, deposit $10 on Monday, Wednesday, and Friday, and withdraw $27.50 on Tuesday and Thursday.

Ⓓ Every week for 10 weeks, deposit $20 on Monday, Wednesday, and Friday, and withdraw $27.50 on Tuesday and Thursday.

18

Decide whether each expression simplifies to a number less than −1, greater than 1, or neither. Mark an X under the correct column.

Expression	Less than −1	Greater than 1	Neither
$-3 \div (-4)$			
$-(5 \div 2)$			
$-\frac{8}{3} \times \left(-\frac{3}{5}\right)$			
$-2 \times \left(-\frac{7}{2}\right)$			
$(-10) \div 6$			

19

Ivan is doing an experiment with a standard 1–6 number cube. About how many times should he expect to roll an even number on the number cube if he rolls it 600 times?

Answer _____

20

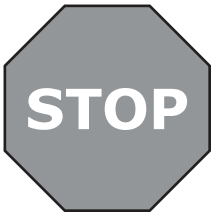
Point *C* is located 8 inches from point *A* and 6 inches from point *B*. Points *A* and *B* are 2 inches apart. Which statement is true?

Ⓐ The points cannot be connected to form a triangle.

Ⓑ The points can be connected to form exactly one triangle.

Ⓒ The points can be connected to form exactly two triangles.

Ⓓ The points can be connected to form more than two triangles.



Section 2 (Calculator-Active)

Answer questions 21–66. Answer multiple-choice and multi-select problems on the Answer Form. Answer all other problems in your test booklet. You may use a calculator.

21

The table shows the relationship between x, the number of quarters inserted into a dryer at a laundromat, and y, the number of minutes the dryer runs.

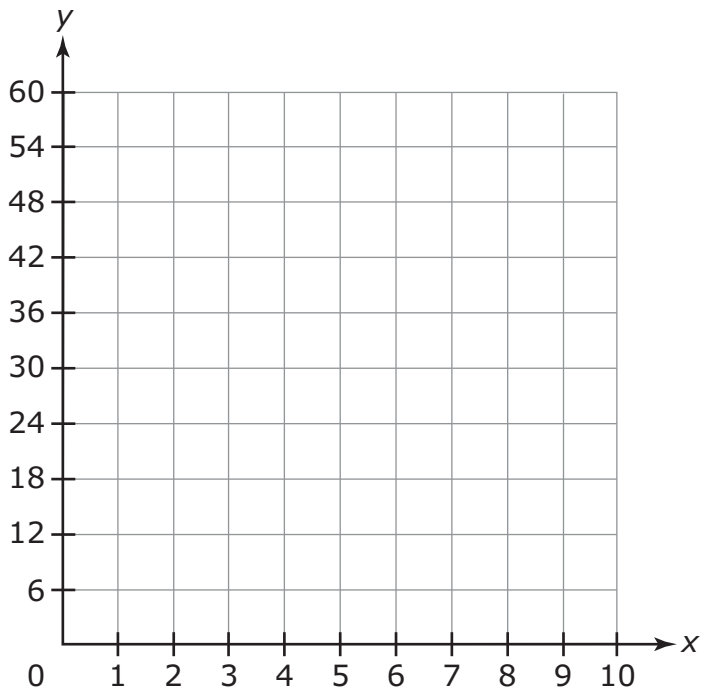
Number of Quarters, x	Number of Minutes, y
2	12
3	18
5	30
8	48

Part A

Are the number of quarters and the number of minutes in a proportional relationship? Explain your reasoning.

Part B

Plot the points in the table on a coordinate grid and connect them with a line. What is the *y*-intercept of the line?



Answer *y*-intercept: _____

Part C

What information do you get by drawing a line to connect the points on this graph? Given the context of the problem, is it appropriate to connect the points on the graph with a line? Explain.

_____

_____

_____

Go On

22

Hadi earned $120.00 from his job yesterday. Today he expects to earn 15% less than yesterday, and tomorrow he expects to earn 15% more than today.

What is the combined amount Hadi expects to earn for the three days?

Ⓐ $308.70

Ⓑ $339.30

Ⓒ $360.00

Ⓓ $416.70

23

Select the expressions that are equivalent to $12x - 6$.

Ⓐ $-6(2x - 1)$

Ⓑ $6(2x - 1)$

Ⓒ $6x(2 - 1)$

Ⓓ $-6x(2x - 1)$

Ⓔ $-6(-2x + 1)$

Ⓕ $6x(-2x + 1)$

24

Gina is a salesperson at a furniture store. She earns $2,500 per month plus a commission of 12% on all her sales. In order to meet her monthly budget, she needs to earn at least $4,300 per month.

Part A

Write an inequality to represent how much Gina should sell in a month in order to meet her monthly budget.

Answer _____

Part B

Solve the inequality from Part A.

Answer _____

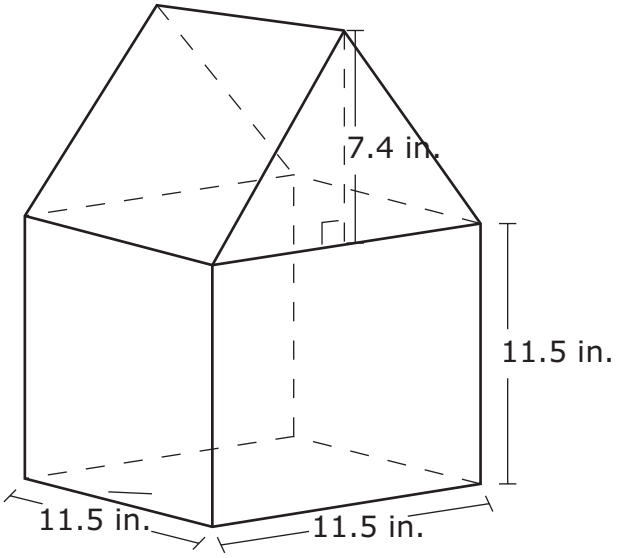
Part C

Graph the inequality from Part B on the number line.

Go On

25

The diagram below shows a birdhouse Michael is building. The lower part of the birdhouse is a cube. The upper part is a triangular prism.



[not drawn to scale]

Part A

Michael wants to know how much space there will be inside the birdhouse, so he calculates the volume. What is the volume of the birdhouse?

Answer _____ cubic inches

Part B

On one wall, Michael will make an entrance hole with a 1.5-inch diameter. What is the area of the entrance hole, rounded to the nearest tenth of a square inch?

Answer _____ square inches

26

A school official surveys two representative samples of 50 high school students from Center City to find out which electives they are taking. The city's total high school population is 2,800 students.

The table below shows the responses.

	Number of Students	
Elective	**Survey A**	**Survey B**
Photography	18	18
Drama	1	1
T.V. Production	6	7
Woodworking	5	4
Painting	20	20
Total	50	50

Based on the results of the two surveys, select all the inferences that are valid.

Ⓐ Only 1 student in the high school takes drama class.

Ⓑ About 10% of the entire high school population takes woodworking.

Ⓒ In any group of 100 random students from the high school, it is expected that about 40 of the students take painting.

Ⓓ Next year, about 18 out of every 100 students will take photography.

Ⓔ Most high school students in this district are interested in T.V. production.

Go On

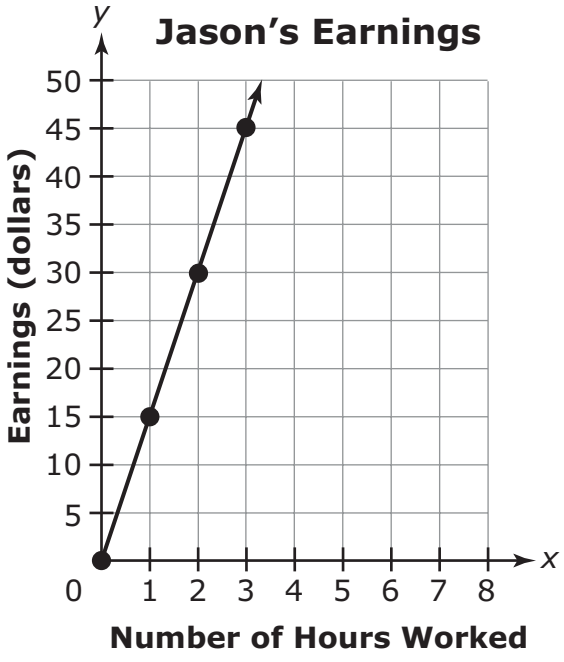
27

Four teams are playing in a basketball tournament. The table reports the probabilities of some events occurring in the tournament. Mark an X in the correct column to determine which best describes the likelihood of each event will occur.

Report	Likely	Unlikely	Neither
There is a 0.85 chance of Team A scoring less than 70 points.			
There is a 45% chance of Team B scoring more than 60 points.			
There is a $\frac{1}{5}$ chance of Team C winning the game over Team D.			

28

The graph below shows Jason's earnings based on the number of hours he works. Circle the point on the graph that represents the fact that if Jason does not work, he does not get paid.



29

At the deli, Chrystelle bought $\frac{2}{3}$ pound of ham and $\frac{3}{5}$ as many pounds of cheese as ham. Cheese costs $4.95 per pound and ham costs $\frac{5}{3}$ as much per pound as cheese.

Part A

How much did Chrystelle pay in total for ham?

Answer $_____

Part B

How much did Chrystelle pay in total for cheese?

Answer $_____

30

A factory produced a batch of 12,000 microchips in one hour. A quality control manager randomly selected 200 chips to test. She found that 8 chips are defective. How many chips should she predict to be defective?

Ⓐ 400

Ⓑ 480

Ⓒ 640

Ⓓ 800

Go On

31

Xi purchased 10 equally priced DVDs online. He paid $250, which included shipping. Select the statements that are true.

Ⓐ If the shipping fee was $2, the cost of each DVD was $24.80.

Ⓑ If the shipping fee was $5, the cost of each DVD was $24.50.

Ⓒ If the shipping fee was $6, the cost of each DVD was $24.60.

Ⓓ If the shipping fee was $8, the cost of each DVD was $24.20.

Ⓔ If the shipping fee was $14, the cost of each DVD was $23.40.

Ⓕ If the shipping fee was $22, the cost of each DVD was $22.80.

32

Amelia typed an essay on her computer. She typed $\frac{3}{5}$ of a page in $\frac{1}{5}$ hour.

Part A

What is her unit rate in pages per hour?

Answer _____ pages per hour

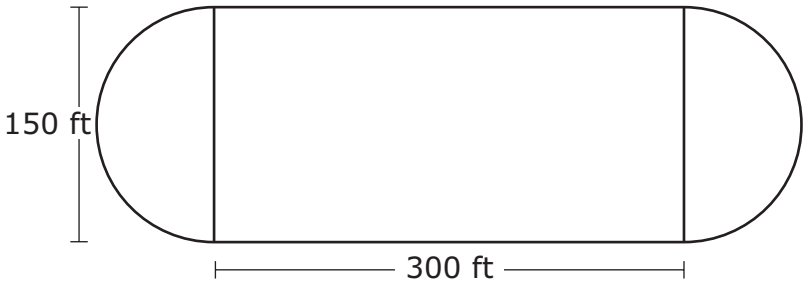
Part B

Suppose each page had an average of 450 words on it. On average, how many words did Amelia type per minute?

Answer _____ words per minute

33

The field below is made up of a rectangle and two semicircles at its ends.



[not drawn to scale]

To the nearest foot, what is the perimeter of the field? Use 3.14 for π.

Answer _____ feet

34

Doubling the sum of Steve's and Pam's ages gives 38. If Pam is 10 years old, how old is Steve?

Ⓐ 4 years old

Ⓑ 9 years old

Ⓒ 14 years old

Ⓓ 29 years old

Go On

35

Javier is making a special fertilizer for his garden. The ingredients are mixed as follows.

- $\frac{3}{8}$ of the fertilizer is cottonseed.
- $\frac{1}{4}$ of the fertilizer is phosphate.
- $\frac{1}{4}$ of the fertilizer is wood ash.
- $\frac{1}{8}$ of the fertilizer is limestone.

The ingredients must be mixed in the ratio shown above.

Part A

The table shows the amounts, in cups, of some ingredients Javier is using to make 3 batches of his fertilizer. For example, Javier uses 3 cups of cottonseed in Batch 3. The amount of fertilizer in each batch is different. Use the ratios from above to complete the table with the appropriate amount for each ingredient.

	Batch 1	**Batch 2**	**Batch 3**
Cottonseed	$\frac{3}{4}$		3
Phosphate		1	
Wood Ash		1	
Limestone			1

Part B

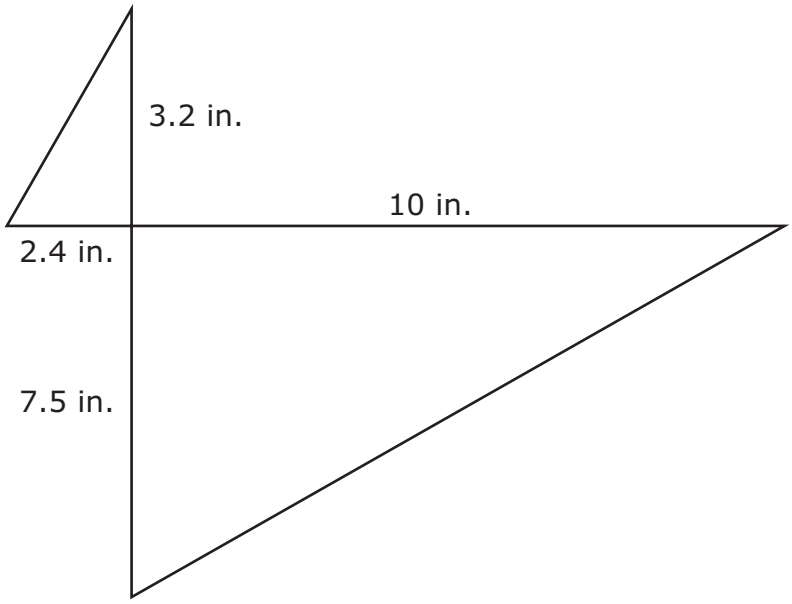
Javier makes 24 cups of fertilizer every week. How many cups of each ingredient does he use each week?

Answer wood ash: _____ cups

limestone: _____ cups

36

The figure below is composed of 2 right triangles.



[not drawn to scale]

What is the area of the figure in square inches?

Answer _____ square inches

Go On

37

The ages of the male and female homeroom teachers at Lincoln Middle School are listed in the tables below.

Ages of Male Homeroom Teachers

27	31	42
37	58	55
29	36	45

Ages of Female Homeroom Teachers

25	51	32
38	23	33
27	41	54

Select all the statements that correctly compare the two data sets.

Ⓐ The interquartile ranges of both data sets are the same.

Ⓑ The mean age of the male homeroom teachers is 4 less than the mean age of the female homeroom teachers.

Ⓒ The ranges of both data sets are the same.

Ⓓ The median age of male homeroom teachers is 33.

Ⓔ The mean age of female homeroom teachers is 36.

Ⓕ The mean age of male homeroom teachers is 37.

38

Anya makes a scale drawing of a bug. The scale of the drawing's length to the actual bug's length is 2 inches: $\frac{1}{8}$ inch. The actual bug is $\frac{3}{4}$ inch long. How long is Anya's drawing of the bug?

Answer _____ inch(es)

39

Which table shows a proportional relationship?

Ⓐ

x	6	7	8
y	17	18	19

Ⓑ

x	7	8	9
y	21	24	27

Ⓒ

x	8	9	10
y	64	81	100

Ⓓ

x	10	11	12
y	45	49	53

Go On

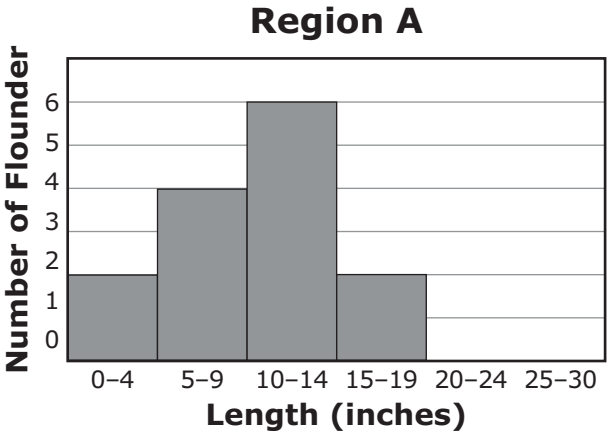
40

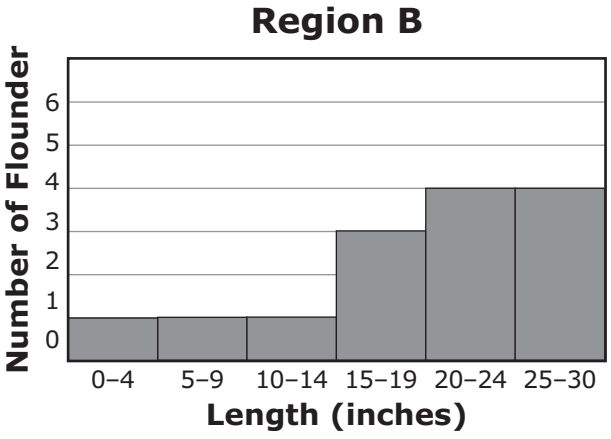
The circumference of a circular pool is 43.96 meters. What is the area in square meters? Use 3.14 for π.

Answer _____ square meters

41

Biologists measured the lengths of flounder in random samples from two different coastal regions. Both regions have many similar characteristics. But, Region A contains a significant number of the flounders' natural enemies, while Region B does not. The data is presented in the histograms.





Based on the data in the histograms, which inference is valid?

Ⓐ There is more variation in the lengths of flounder from Region A than in the lengths of flounder from Region B.

Ⓑ The range of lengths of flounder from Region B is greater than the range of lengths of flounder from Region A.

Ⓒ Flounder from Region B tend to be shorter than flounder from Region A.

Ⓓ A random flounder from Region B will always be longer than a random flounder from Region A.

42

Garlan works in a shoe store and earns a commission. When he sells $150 worth of shoes he earns $15 in commission. Which equation can be used to find the total commission, C, Garlan will earn if the cost, s, of the shoes he sells is known?

Ⓐ $C = 15s$

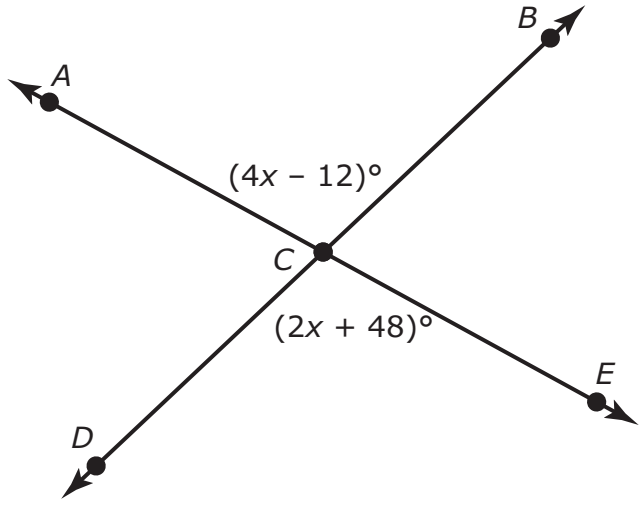
Ⓑ $C = 10s$

Ⓒ $C = \frac{1}{10}s$

Ⓓ $C = \frac{1}{15}s$

43

Look at the figure below.



What is the measure of $\angle ACB$?

Answer _____ °

Go On

44

The town library is raising money by selling old books for $4 each. Write an equation that can be used to find the amount of money raised if the number of books sold is known. Let x represent the number of books sold and y represent the amount raised.

Answer _____

45

An ecologist drew a random sample of 10 adult white bass from two lakes and weighed each of the fish. Her results are shown below.

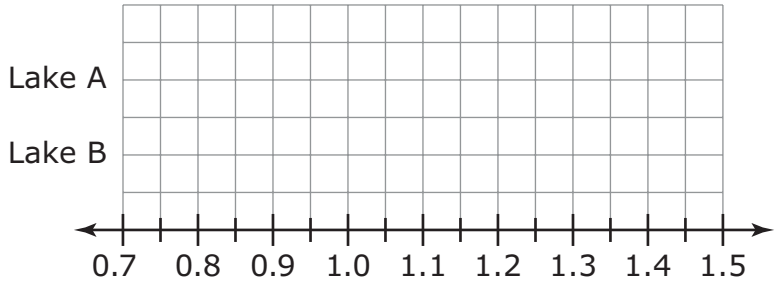
Lake A

0.92 pound	1.06 pounds	1.27 pounds	1.38 pounds	0.97 pound
1.14 pounds	0.89 pound	1.19 pounds	1.29 pounds	0.99 pound

Lake B

0.86 pound	1.27 pounds	0.79 pound	1.04 pounds	0.83 pound
0.96 pound	0.72 pound	1.21 pounds	1.34 pounds	1.28 pounds

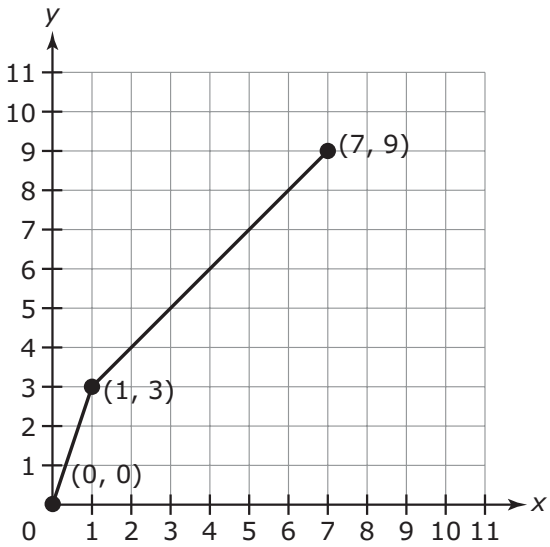
Make a box plot for each data set.



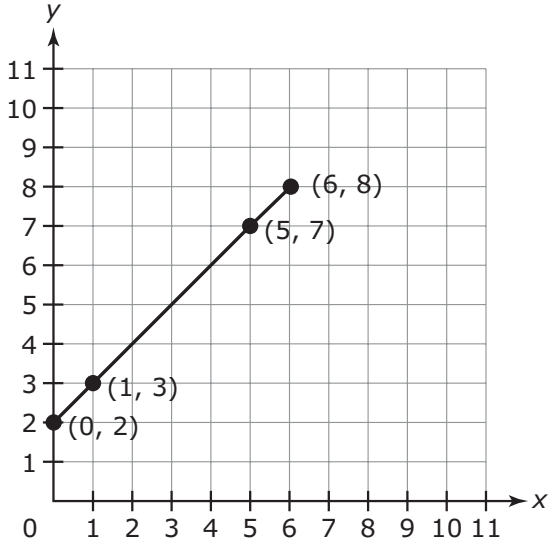
46

Four students in Mrs. Henderson's class each attempted to graph a proportional relationship between x and y. Which graph shows a proportional relationship?

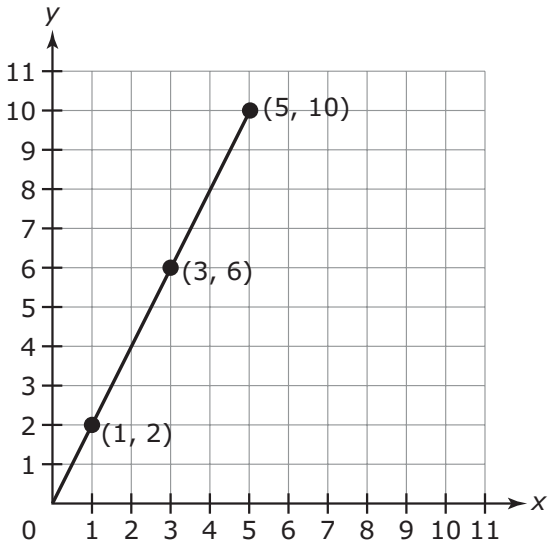
Ⓐ



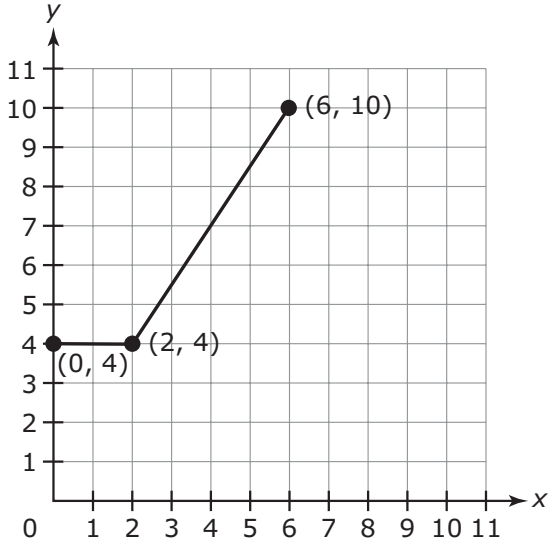
Ⓒ



Ⓑ



Ⓓ



Go On

47

The length, l, of a rectangle is 3 inches greater than its width, w. The perimeter of the rectangle is at least 30 inches. Which inequality shows the range of possible lengths of the rectangle?

Ⓐ $l \geq 16.5$ inches

Ⓑ $l \geq 13.5$ inches

Ⓒ $l \geq 9$ inches

Ⓓ $l \geq 6$ inches

48

The speed of a baseball pitcher's fastball is 92.4 miles per hour. His fastball is 10% faster than his curveball, and his curveball is 5% faster than his change-up.

Part A

How fast is the pitcher's curveball?

Answer _____ miles per hour

Part B

How fast is the pitcher's change-up?

Answer _____ miles per hour

49

Scott makes a scale drawing of a rectangular park. He uses the scale 5 centimeters : 3 meters. The length of his drawing is 20 centimeters and the width is 15 centimeters. What is the area of the park?

Answer _____ square meters

50

Kira is taking pledges for a bike-a-thon fundraiser.

- Johan pledged $5.50, plus $1.75 for each mile that Kira bikes.
- Nikki pledged $6.50, plus $1.25 for each mile that Kira bikes.

Part A

Let *m* be the number of miles that Kira bikes. Write two expressions that represent the amount Johan pledged and the amount Nikki pledged.

Answer Johan: _____

Nikki: _____

Part B

Add the two expressions from Part A to find the combined amount that Johan and Nikki pledged in terms of *m*.

Answer _____

Part C

Write an expression equivalent to the one from Part B by factoring out the greatest common factor from the two terms.

Answer _____

Go On

51

Richard mows $\frac{1}{3}$ of his yard in $\frac{1}{2}$ hour. At that same rate, how much of his yard would Richard mow in 1 hour?

Ⓐ $\frac{1}{6}$

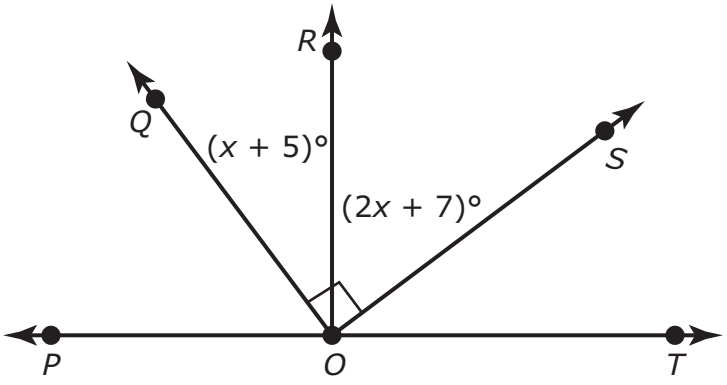
Ⓑ $\frac{2}{5}$

Ⓒ $\frac{2}{3}$

Ⓓ $\frac{3}{2}$

52

The figure below shows several rays that share a common endpoint.

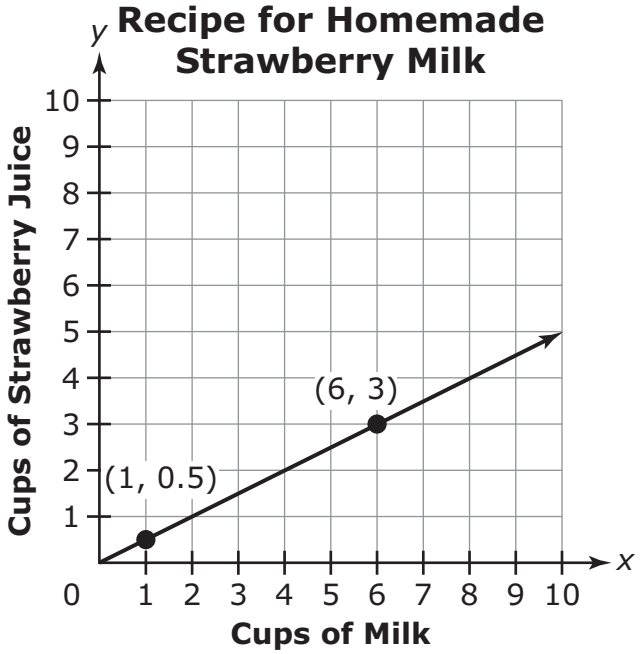


What is the value of x?

Answer $x =$ _____

53

The graph below shows the proportional relationship between the cups of milk and the cups of strawberry juice in a recipe for homemade strawberry milk.



What is the meaning of the point (6, 3)?

Ⓐ For every 6 cups of milk, there should be 6 cups of strawberry juice.

Ⓑ For every 6 cups of milk, there should be 3 cups of strawberry juice.

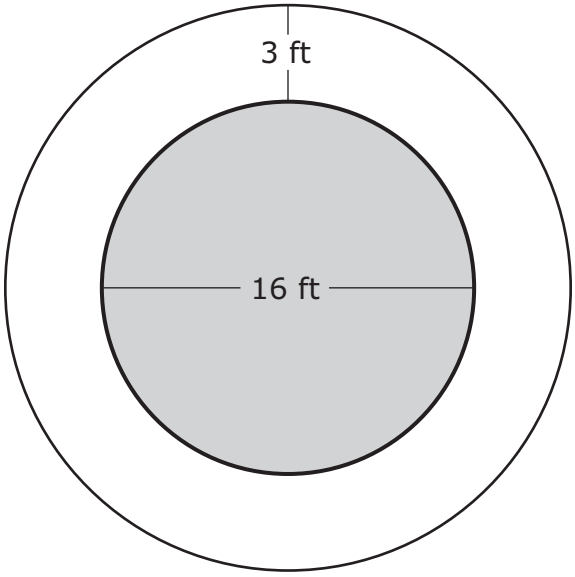
Ⓒ For every 3 cups of milk, there should be 6 cups of strawberry juice.

Ⓓ For every 3 cups of milk, there should be 3 cups of strawberry juice.

Go On

54

The fountain in the middle of a park is circular, with a diameter of 16 feet. There is a walkway 3 feet wide that surrounds the fountain.



Suppose the width of the walkway is increased by 1 foot. By approximately how much would this increase the area of the walkway? Use 3.14 for π.

Answer _____ square feet

55

A landscaper is raising the price she charges to mow a lawn by 20%. She used to charge $30 to mow a lawn.

Part A

What is her new rate?

Answer $_____ per lawn

Part B

Suppose the landscaper lowers her new rate by 20%. What is her rate now?

Answer $_____ per lawn

56

Action Wheels manufactures models of antique cars. In August, it manufactured 300 model cars. In September, it manufactured 5% fewer model cars than in August.

Part A

What is the difference between the numbers of cars manufactured in August and in September?

Answer _____ cars

Part B

Of the cars manufactured in September, $\frac{1}{5}$ were models of NASCAR cars and $\frac{1}{3}$ were World War II models. Of the cars manufactured in September, how many were neither NASCAR model cars nor World War II model cars?

Answer _____ cars

Part C

Of the cars manufactured in September that were neither NASCAR model cars nor World War II model cars, $\frac{1}{7}$ will be discontinued. How many model cars will be discontinued?

Answer _____ cars

Go On

57

Nadia has a spinner with 5 different colors. She spins the spinner 500 times. The table shows her results.

Color	Number of Times Spun
Red	36
Yellow	109
Green	78
Blue	32
Orange	245

Nadia finds the estimated probability of spinning each color based on her results. Select all of Nadia's estimated probabilities that are reasonable.

Ⓐ Based on the results in the table, the probability for spinning red is about 15%.

Ⓑ Based on the results in the table, the probability for spinning yellow is about 20%.

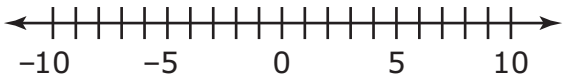
Ⓒ Based on the results in the table, the probability for spinning green is about 15%.

Ⓓ Based on the results in the table, the probability for spinning blue is about 30%.

Ⓔ Based on the results in the table, the probability for spinning orange is about 50%.

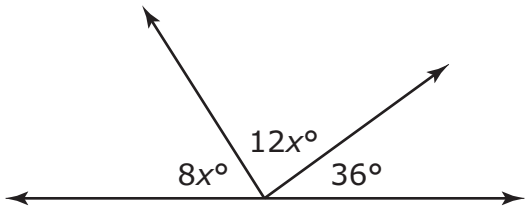
58

When a snowstorm hit the town of Clarkesville, there already were 4 inches of snow on the ground. The storm lasted for 2 hours, and by the time it was over, there were at least 6 inches of snow on the ground. Use the number line to graph the solution set for the mean number of inches of snow per hour that could have fallen during the storm.



59

Look at the figure below.



What is the measure of the middle angle?

Answer _____ °

60

Liam made a scale drawing of a rectangular playground. He used the scale 2 inches : 3 feet. His drawing has width 18 inches and length 24 inches.

Part A

What are the length and the width of the actual playground?

Answer width = _____ feet

length = _____ feet

Part B

Use a scale of 1 inch : 9 feet to draw and label a new scale drawing of the playground.

Go On

61

A proportional relationship can be represented by an equation in the form $y = kx$, where k is the constant of proportionality. For the equation $2x = 18y$, what is the constant of proportionality?

Ⓐ 9

Ⓑ 2

Ⓒ $\frac{1}{2}$

Ⓓ $\frac{1}{9}$

62

Lorenzo has a bag with 20 marbles. There are 5 yellow marbles, 5 green marbles, 5 red marbles, and 5 blue marbles. He selects a marble at random and returns it to the bag. He then selects another marble. Select all statements that are true.

Ⓐ The expected probability of selecting a blue marble first is not the same as the expected probability of drawing a red marble second.

Ⓑ The expected probability of selecting either a red or a blue marble first is $\frac{1}{2}$.

Ⓒ There are 16 possible outcomes in the sample space.

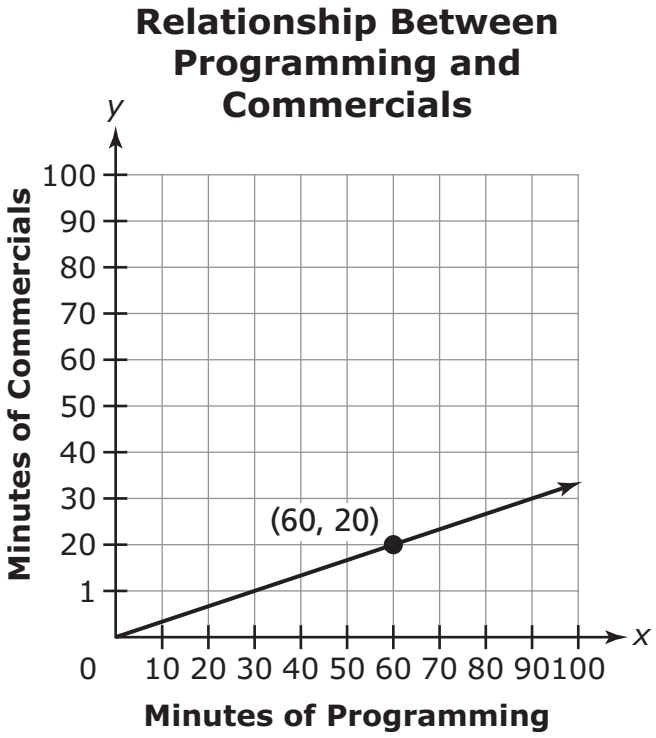
Ⓓ The expected probability of selecting a red marble first and a blue marble second is $\frac{1}{4}$.

Ⓔ The expected probability of selecting the same color first and second is $\frac{1}{4}$.

Ⓕ There are 12 possible outcomes where the first and second colors are not the same.

63

The graph below shows the relationship between the number of minutes of programming on a TV station and the number of minutes of commercials.



Part A

What does the point (60, 20) represent?

_____

_____

Part B

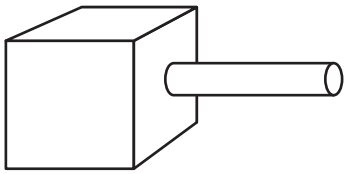
If a point on the line is (1, y), what is the value of y?

Answer y = _____

Go On

64

Nicole glues one end of cylinder to a cube as shown below.



Part A

Each side length of the cube is 4 inches. What is the surface area of the cube by itself?

Answer _____ square inches

Part B

The cylinder is 5 inches long with a diameter of 1 inch. What is the surface area of the cylinder by itself? Use 3.14 for π.

Answer _____ square inches

Part C

What is the exposed surface area of the cylinder after it is glued to the cube? Use 3.14 for π.

Answer _____ square inches

65

Administrators at Oak Hill Middle School know that 20% of the students walk or ride a bike to school. The random numbers in the table are used to simulate selecting 5 students randomly from the school. The digits 0 and 1 represent a student who walks or rides a bike. The digits 2 through 9 represent a student who rides a school bus.

Random Numbers

68167	91123	58548	39763	75699
45543	98669	14834	05636	91877
18889	22953	01734	00200	87841
50445	94494	79182	71340	81845
84133	48497	48163	87370	42078
36300	52090	57707	67986	71221
82355	95338	21209	21432	95800
32172	38553	76996	78742	34739

Part A

Based on the simulation, what is the probability that exactly 2 out of 5 students walk or ride a bike to school?

Answer _____%

Part B

Based on the simulation, what is the probability that at least 2 out of 5 students walk or ride a bike to school?

Answer _____%

Go On

66

Four local stores sell the same brand of cheddar cheese. The table below shows how much each store charges.

Cheddar Cheese

Store	Amount	Price
Store A	3 lb	$9.00
Store B	3 lb	$9.75
Store C	4 lb	$12.40
Store D	5 lb	$14.50

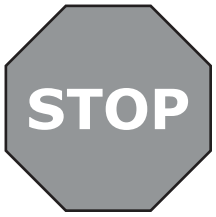
Which store has the highest price per pound for the cheese?

Ⓐ Store A

Ⓑ Store B

Ⓒ Store C

Ⓓ Store D



Cut along the dotted line.

***Ready*® FSA Mathematics Assessments, Level 7**
Answer Form

Name_____

Teacher_____ Grade_____

School_____ City_____

Assessment 2

Section 1

1. See page 38.
2. See page 38.
3. See page 39.
4. See page 39.
5. Ⓐ Ⓑ Ⓒ Ⓓ
6. See page 40.
7. See page 41.
8. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ
9. Ⓐ Ⓑ Ⓒ Ⓓ
10. Ⓐ Ⓑ Ⓒ Ⓓ
11. See page 43.
12. See page 43.
13. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ
14. Ⓐ Ⓑ Ⓒ Ⓓ
15. See page 45.
16. See page 45.
17. Ⓐ Ⓑ Ⓒ Ⓓ
18. See page 46.
19. See page 47.
20. Ⓐ Ⓑ Ⓒ Ⓓ

Section 2

21. See page 48.
22. Ⓐ Ⓑ Ⓒ Ⓓ
23. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ
24. See page 51.
25. See page 52.
26. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ
27. See page 54.
28. See page 54.
29. See page 55.
30. Ⓐ Ⓑ Ⓒ Ⓓ
31. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ
32. See page 56.
33. See page 57.
34. Ⓐ Ⓑ Ⓒ Ⓓ
35. See page 58.
36. See page 59.
37. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ
38. See page 61.
39. Ⓐ Ⓑ Ⓒ Ⓓ
40. See page 62.
41. Ⓐ Ⓑ Ⓒ Ⓓ
42. Ⓐ Ⓑ Ⓒ Ⓓ
43. See page 63.
44. See page 64.
45. See page 64.
46. Ⓐ Ⓑ Ⓒ Ⓓ
47. Ⓐ Ⓑ Ⓒ Ⓓ
48. See page 66.
49. See page 67.
50. See page 67.
51. Ⓐ Ⓑ Ⓒ Ⓓ
52. See page 68.
53. Ⓐ Ⓑ Ⓒ Ⓓ
54. See page 70.
55. See page 70.
56. See page 71.
57. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ
58. See page 72.
59. See page 73.
60. See page 73.
61. Ⓐ Ⓑ Ⓒ Ⓓ
62. Ⓐ Ⓑ Ⓒ Ⓓ Ⓔ Ⓕ
63. See page 75.
64. See page 76.
65. See page 77.
66. Ⓐ Ⓑ Ⓒ Ⓓ