

Practice Test 1: Book 1

Answer questions 1 through 34. You may NOT use a calculator.

1 What is the numerical expression $\frac{5}{8} - \frac{5}{12}\left(3 - \frac{1}{4}\right) + \frac{2}{3}$ equal to?

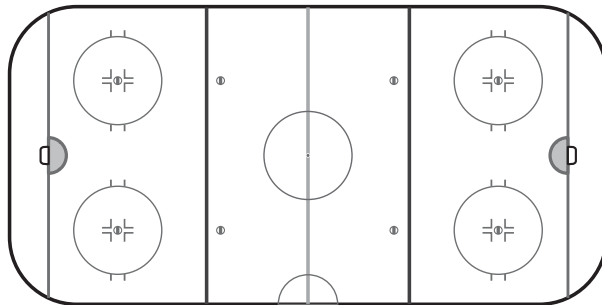
A $-26\frac{5}{24}$

B $\frac{7}{48}$

C $1\frac{1}{24}$

D $1\frac{23}{96}$

2 A diagram of a hockey rink is shown below. The diameter of the middle circle is 30 feet.



What is the approximate area of the middle circle? Use 3.14 for π .

A 94 ft^2

B 149 ft^2

C 707 ft^2

D $2,826 \text{ ft}^2$

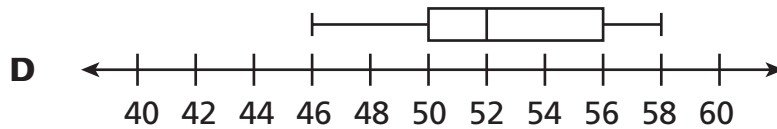
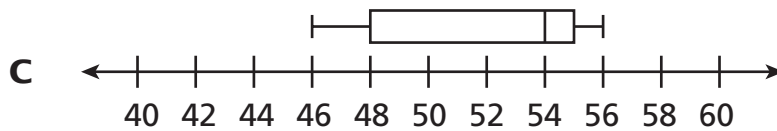
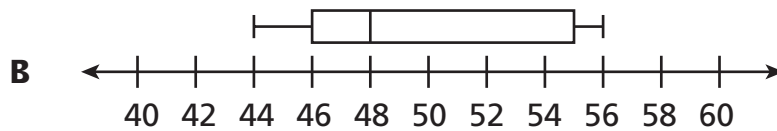
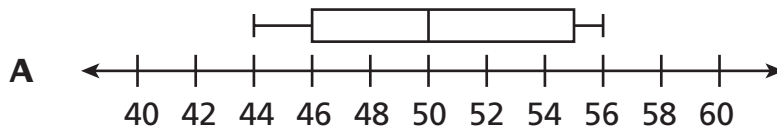
3 How is the difference $\frac{14}{15} - \frac{5}{12}$ written as a decimal?

- A** 0.15
- B** 0.4
- C** $0.51\bar{6}$
- D** 3

4 The heights, in inches, of several seventh-grade students at Evan Mills Middle School are listed below.

56, 50, 47, 55, 50, 51, 55, 45, 55, 49, 45, 44

Which box plot *best* displays these data?



Go On

5 Candice bought 3 shirts. Each shirt cost the same amount and was discounted by \$3.66. Candice paid a total of \$62.31 before tax. How much did each shirt cost before the discount?

- A** \$19.55
- B** \$20.77
- C** \$24.43
- D** \$28.09

6 Dale bought a map of his city. It uses a scale of 1 inch = 8 miles. Dale's house and school are $1\frac{1}{2}$ inches apart on the map. How far apart would his house and school be on the map if the scale were 1 inch = 6 miles?

- A** $1\frac{1}{8}$ in.
- B** $1\frac{3}{4}$ in.
- C** 2 in.
- D** 4 in.

7 Which expression represents the sum of $\frac{2}{3}m - 1\frac{1}{6}$ and $\frac{5}{6}m - 1\frac{1}{3}$?

- A** $1\frac{1}{2}m + 2\frac{1}{2}$
- B** $\frac{1}{6}m - \frac{1}{3}$
- C** $1\frac{1}{2}m - 2\frac{1}{2}$
- D** $\frac{1}{6}m + \frac{1}{3}$

8 The sum of three numbers is -44.84 . One of the numbers is 24.6 . The other two numbers are equal to each other. What is the value of each of the other two numbers?

- A** 4.36
- B** -10.12
- C** -34.72
- D** -40.48

9 A proportional relationship is represented by the equation $2x = 18y$. If $y = kx$, where k is the constant of proportionality, then what is the value of k ?

- A** 9
- B** 2
- C** $\frac{1}{2}$
- D** $\frac{1}{9}$

10 Which situation could be solved using the equation $-4 + 4 = 0$?

- A** Terrance has \$4 in his lunch account. He deposits \$4 in his account when he gets to school in the morning.
- B** Juanita recorded a temperature of -4°F at 8:00 A.M. An hour later, the temperature increased 4° .
- C** Griffin places 4 counters, each representing -1 , in a group. He creates a total of 4 identical groups.
- D** Melinda walks 4 blocks towards her home and stops to get a snack. She walks the remaining 4 blocks home.

Go On

- 11** A bakery has a fixed cost of \$119.75 per day plus \$2.25 for each pastry. The bakery would like to keep its daily costs at or below \$500 per day. Which inequality shows the maximum number of pastries, p , that can be baked each day?
- A** $2.25 + 119.75p \leq 500; p \leq 416$
 - B** $(119.75 + 2.25)p \leq 500; p \leq 409$
 - C** $119.75 + 2.25p \leq 500; p \leq 169$
 - D** $2.25p - 119.75 \leq 500; p \leq 275$

- 12** 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 -1.56 pounds. This year, the difference in its weight from last year is 0.73 pounds. What is the difference in the cat's weight from 2 years ago?
- A** -2.29 pounds
 - B** -2.19 pounds
 - C** -0.93 pound
 - D** -0.83 pound

- 13** Mr. and Mrs. Garcia took their three children to see a matinee on Saturday. They spent a total of \$55.50, which included \$29.25 at the concession stand. Each of the movie tickets cost the same amount. Which equation shows the cost of each ticket, t ?
- A** $5t = 29.25 + 55.5; t = \$16.95$
 - B** $29.25 + 3t = 55.5; t = \$8.75$
 - C** $29.25 + 5t = 55.5; t = \$5.25$
 - D** $6t = 55.5 - 29.25; t = \$5.00$

- 14** The figure below shows the distance between two cities on a map. The scale of the map is $\frac{1}{8}$ inch = 12 miles.



The Mitchell family drove from Lee Springs to Boothville in $3\frac{3}{4}$ hours. What was their approximate average speed?

- A** 38.4 miles per hour
- B** 44.8 miles per hour
- C** 54.4 miles per hour
- D** 57.6 miles per hour
-
- 15** Brett took a test that gave 2 points for each correct response and $-\frac{1}{2}$ point for each incorrect response. He answered 35 questions correctly and 15 questions incorrectly, so his total number of points was $35(2) + \left[-\frac{1}{2}(15)\right]$. What is another way to write Brett's total number of points on the test?
- A** $15(2) + \left[-\frac{1}{2}(35)\right]$
- B** $15(2) + \frac{1}{2}(35)$
- C** $35(2) - \left[-\frac{1}{2}(15)\right]$
- D** $35(2) - \frac{1}{2}(15)$

16

A 20-ounce box of cereal normally sells for \$3.60. During a special promotion, the cereal will be sold in boxes containing 20% more cereal, but will have the same price. What will be the cost per ounce of the larger box?

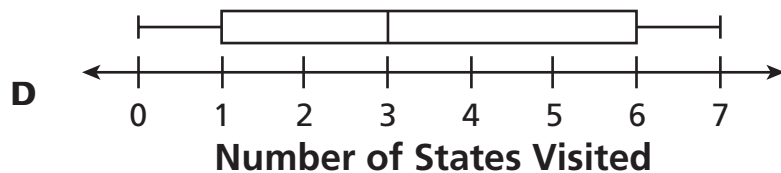
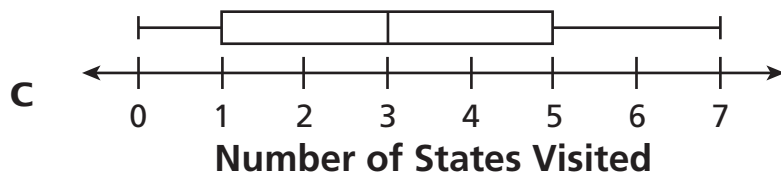
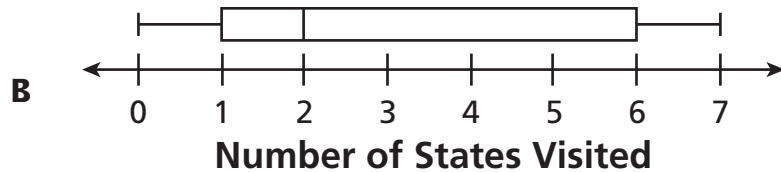
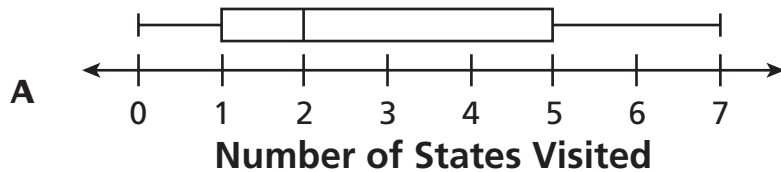
- A** \$0.22
- B** \$0.18
- C** \$0.15
- D** \$0.09

17

Cho surveyed some of her classmates to find how many other states each had visited. Her results are shown here.

1, 5, 0, 7, 6, 2, 0, 1, 2, 4, 1

Which box plot best displays these data?



18

It took Lisa 2 hours to read the first 100 pages of a book. Then she read the last 44 pages in 1 hour. How many pages did she read per minute for the whole book?

- A 0.75
- B 0.8
- C 1.2
- D 1.25

19

Veronica randomly surveyed a group of students to find out how they arrived at school that morning. The data she gathered are in the table below.

HOW STUDENTS ARRIVED AT SCHOOL

	Walked	Car	Bicycle	Bus
Number of Students	8	7	3	42

Which statement about the 540 total students at Veronica's school is **best** supported by the data?

- A Many more students walk to school than arrive by car.
- B About 380 students take the bus to school.
- C Fewer than 20 students ride bicycles to school.
- D About 140 students walk to school.

20

Blake plays football. Last year, he averaged 280 passing yards per game during his team's 9-game season. The school record for total passing yards in a season is 3,114 yards. If Blake increases his passing yards per game by 25% during this year's 9-game season, how close will he come to breaking the record?

- A He will break the record by 36 yards.
- B He will break the record by 29 yards.
- C He will be 369 yards short of breaking the record.
- D He will be 531 yards short of breaking the record.

Go On

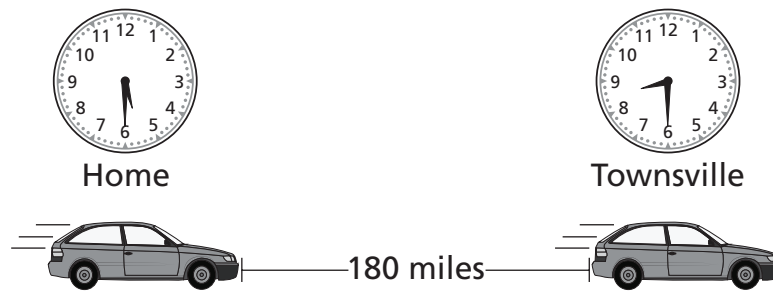
- 21** The low temperatures on New Year's Day in a city for 5 years are shown below.

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?

- A** -2.5°F
- B** -2°F
- C** 0.6°F
- D** 4°F

- 22** Adel drove from her house to Townsville one evening. The diagram below shows the time Adel left home, the time she arrived in Townsville, and the distance she drove.



What was Adel's average speed?

- A** 75 miles per hour
- B** 60 miles per hour
- C** 45 miles per hour
- D** 30 miles per hour

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

- A** $w \geq 16.5$ inches
- B** $w \geq 13.5$ inches
- C** $w \geq 9$ inches
- D** $w \geq 6$ inches

24 Piper works at a camera store. He is paid an hourly rate plus 16% commission on everything he sells. One week, he was paid \$365 for working 20 hours and selling \$1,500 worth of camera equipment. What is his hourly rate?

- A** \$6.25
- B** \$7.50
- C** \$13.56
- D** \$14.92

25 A car dealership is having a sale in which customers pay 85% of the retail price for a new vehicle. Keith is buying a vehicle with a retail price of \$36,000. He negotiates to get 9% off the sale price. How much does Keith pay for the vehicle before tax?

- A** \$33,840
- B** \$30,600
- C** \$27,846
- D** \$27,360

Go On

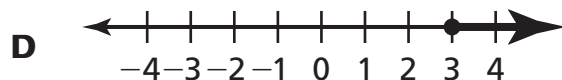
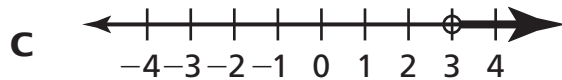
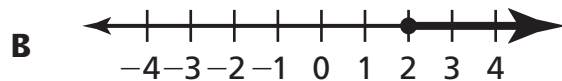
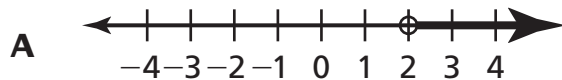
- 26** The numbers of consecutive days that several friends went running is shown below.

32, 46, 42, 30, 38, 47, 51, 35

What is the median of the data?

- A** 34
- B** 38
- C** 40
- D** 42

- 27** A pilot is flying an airplane at an elevation of 17,500 feet. Her goal is to get above 25,000 feet by increasing her elevation at a rate of 2,500 feet per minute. Which number line shows the solution set for the number of minutes the pilot could increase her elevation in order to reach her goal?



28

Peter made two transactions today at his bank. What can the sum $-47.27 + 598 = 550.73$ mean in terms of Peter's bank account?

- A** Peter deposited \$47.27 and withdrew \$598, decreasing his balance by \$550.73.
- B** Peter deposited \$47.27 and withdrew \$598, increasing his balance by \$550.73.
- C** Peter withdrew \$47.27 and deposited \$598, decreasing his balance by \$550.73.
- D** Peter withdrew \$47.27 and deposited \$598, increasing his balance by \$550.73.

29

Yana and Amber play a word game using letter tiles. Each person takes 7 tiles from a set of tiles. Points are earned by using the chosen letter tiles to make a word. Points are lost when tiles are returned to the set and new tiles are chosen. The table shows the points earned or lost by each girl in their first six turns of the game.

Yana	Amber
7	1
-3	5
6	-2
-1	4
8	-2
-2	6

Which statement correctly compares the two girls' average number of points earned over the first six turns?

- A** Yana's average number of points is 0.5 points greater than Amber's.
- B** Amber's average number of points is 1 point greater than Yana's.
- C** Amber's average number of points is 2 points greater than Yana's.
- D** Yana's average number of points is 2.5 points greater than Amber's.

Go On

30 Bethany needs to cut a board into 5 equal sections. If the board is 17.55 feet long, how long will each section be?

- A** 3.51 ft
- B** 4.55 ft
- C** 22.55 ft
- D** 87.75 ft

31 Which expression is equivalent to $-\frac{1}{2}(6x - 5)$?

- A** $12x - 2\frac{1}{2}$
- B** $-3x + 2\frac{1}{2}$
- C** $-12x + 3\frac{1}{2}$
- D** $3x - 3\frac{1}{2}$

32 A painter mixes 6 parts red paint and 8 parts yellow paint to make dark orange paint. Which equation can the painter use to calculate the amount of red paint, R , that is needed to mix with a given amount of yellow paint, Y ?

- A** $R = \frac{6}{8} + Y$
- B** $R = \frac{6}{8} - Y$
- C** $R = \frac{3}{4}Y$
- D** $R = \frac{4}{3}Y$

33 For his job, Hayden earns an hourly rate of \$30. For each hour he works over 40 hours, he earns 1.5 times his regular hourly rate. In a two-week period, Hayden earned \$2,715 by working 40 regular hours each week plus some overtime hours. How many overtime hours did Hayden work?

- A** 7
- B** 11
- C** 21
- D** 34

34 The value of a car decreased \$4,822 in 5 years. What was the average change in the value of the car each year?

- A** -\$964.40
- B** -\$1,000.00
- C** -\$4,817.00
- D** -\$4,827.00

STOP

Answer questions 35 through 68. You may use a calculator.

35 Which fraction equals $\frac{-9}{16}$?

A $\frac{-3}{4}$

B $\frac{9}{-16}$

C $\frac{9}{16}$

D $\frac{3}{4}$

36 Rose went to a stationary 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?

A $\$2.50 \times 2 \times 4 \times 3$

B $\$2.50 \times (2 + 4 + 3)$

C $\$2.50 + (2 \times 4 \times 3)$

D $\$2.50 + 2 + 4 + 3$

37 The town library is raising money by selling old books for \$2 each. Which equation 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 number of dollars raised.

A $y = \frac{x}{2}$

B $y = 2x$

C $y = 2 - x$

D $y = 2 + x$

38 Shamay spent \$200 at a thrift shop. She bought 3 rings for \$21 each and spent the rest on 4 equally priced bracelets. How much did each bracelet cost?

A \$65.75

B \$50.00

C \$34.25

D \$28.57

39 While on a ski vacation, a group can rent pairs of skis and snowboards by the week. They get a reduced rate if they rent 7 pairs of skis for every 3 snowboards rented. The reduced ski rate is \$45.50 per pair of skis per week, and the reduced snowboard rate is \$110 per snowboard per week. The sales tax on each rental is 16%.

The group has \$2,500 available to spend on ski and snowboard rentals. What is the greatest number of pairs of skis and snowboards the group can rent if the ratio of pairs of skis to snowboards is 7:3?

A 14 pairs of skis and 6 snowboards

B 21 pairs of skis and 9 snowboards

C 28 pairs of skis and 12 snowboards

D 35 pairs of skis and 15 snowboards

Go On

- 40** Raul has 4 identical baseball cards of his favorite player. According to his monthly price guide, the change in value of one of the cards from the previous month was $-\$0.12$. What was the combined change in value of the 4 cards?
- A** $-\$0.16$
 - B** $-\$0.25$
 - C** $-\$0.48$
 - D** $-\$0.84$

- 41** Emma is making a scale drawing of her farm using the scale $1 \text{ cm} = 2.5 \text{ ft}$. In the drawing, she drew a well with a diameter of 0.5 centimeters. Which is closest to the actual circumference of the well? Use 3.14 for π .
- A** 1 foot
 - B** 2 feet
 - C** 4 feet
 - D** 5 feet

- 42** A fire department spent $\$900$ to purchase new helmets and gloves. The amount included a 6% sales tax. What was the price of the equipment, *to the nearest dollar*, before tax?
- A** $\$846$
 - B** $\$849$
 - C** $\$854$
 - D** $\$894$

Some seventh grade students at Michaelson Middle School were surveyed to find the amount of time they spent doing homework over the past two nights.

HOMework TIMES

Amount of Time Spent on Homework (in hours)	Number of Students
2	4
3	5
4	6
5	3
6	3
7	0
8	1

What is the mean amount of time spent on homework per student?

- A** 2 hours
- B** 3 hours
- C** 4 hours
- D** 5 hours

Which table shows a proportional relationship between x and y ?

x	y
25	5
30	6
40	8

A

x	y
25	5
30	10
40	20

C

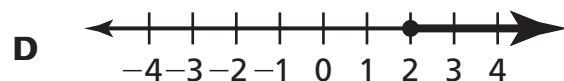
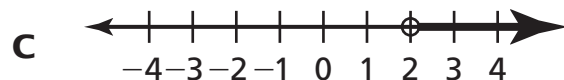
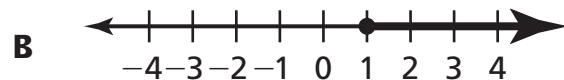
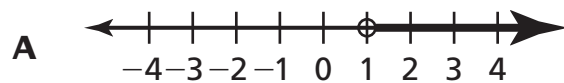
x	y
25	5
30	4
40	3

B

x	y
25	35
30	40
40	50

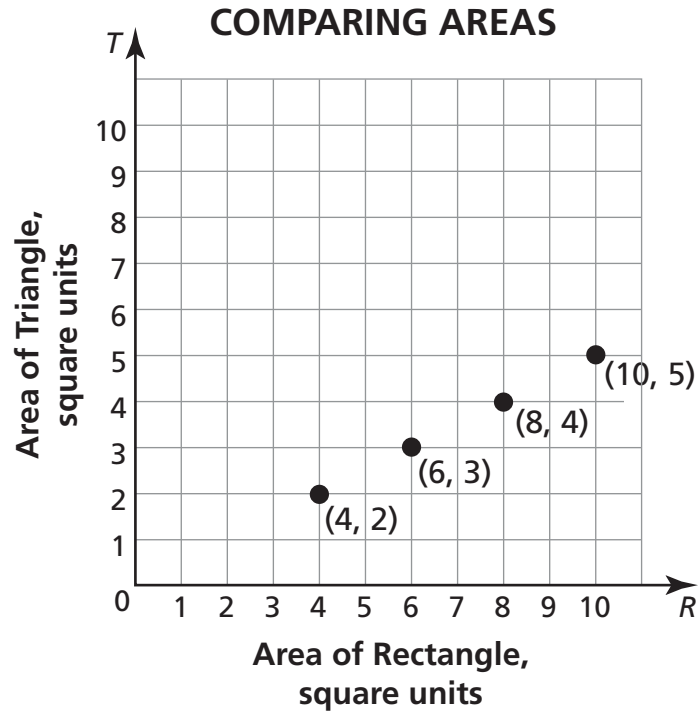
D

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. Which number line shows the solution set for the mean number of inches of snow per hour that could have fallen during the storm?



46

The graph below shows the proportional relationship between the area of a triangle, T , and the area of a rectangle, R , with identical base length and height.



Which equation represents the relationship between T and R ?

- A** $T = 2R$
- B** $T = \frac{1}{2}R$
- C** $R = \frac{1}{2}T$
- D** $R = \frac{2}{T}$

Go On

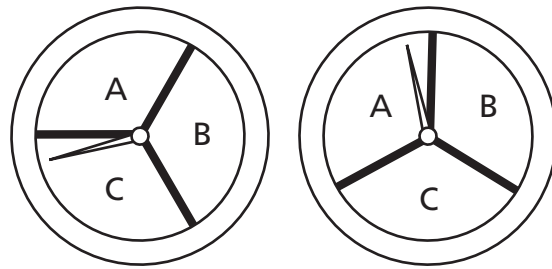
47

The outside temperature was 4°C . For the next 6 hours the temperature changed at a mean rate of -0.8°C per hour. Then the temperature changed by $+0.3^{\circ}\text{C}$ per hour for the next 2 hours. What was the final temperature?

- A** 9.4°C
- B** 8.2°C
- C** -0.2°C
- D** -0.8°C

48

During an experiment Natalie will spin the 2 fair spinners below.



Which answer represents the sample space for this experiment?

- A** (A, A) (A, B) (A, C) (B, A) (B, B) (B, C) (C, A) (C, B), (C, C)
- B** (A, B) (A, C) (B, A) (B, C) (C, A) (C, B)
- C** (A, B) (B, C) (C, A) (C, A) (A, B) (B, C) (B, C) (C, A) (A, B)
- D** (A, A) (B, B) (C, C)

- 49** A point on a straight line has an x -coordinate of 3 and a y -coordinate of 6. Is the relationship between x and y proportional?
- A** Yes, because 3 is proportional to 6.
 - B** Yes, because 3 is proportional to $3 + 6$.
 - C** It cannot be determined. At least one other point on the line is needed to determine if x is proportional to y .
 - D** It cannot be determined. At least two other points on the line are needed to determine if x is proportional to y .

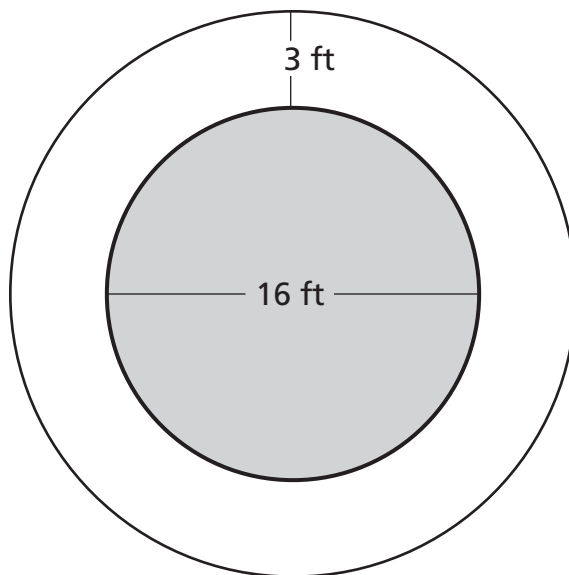
- 50** Each month, Nelson pays \$0.08 per text message that he sends or receives, plus a \$10 fee. Nelson's bill for February was \$44.56. How many text messages did Nelson send or receive in February?
- A** 307
 - B** 432
 - C** 557
 - D** 682

- 51** Jackie is purchasing a \$200 coat at 15% off. There is a \$5.00 shipping charge to have the item shipped to her house. What is the total amount that Jackie must pay?
- A** \$170
 - B** \$175
 - C** \$205
 - D** \$220

52 Which expression is equivalent to $2.8k - 8.4$?

- A** $0.07(4k - 12)$
- B** $0.7(4k - 12)$
- C** $5.6k$
- D** $-5.6k$

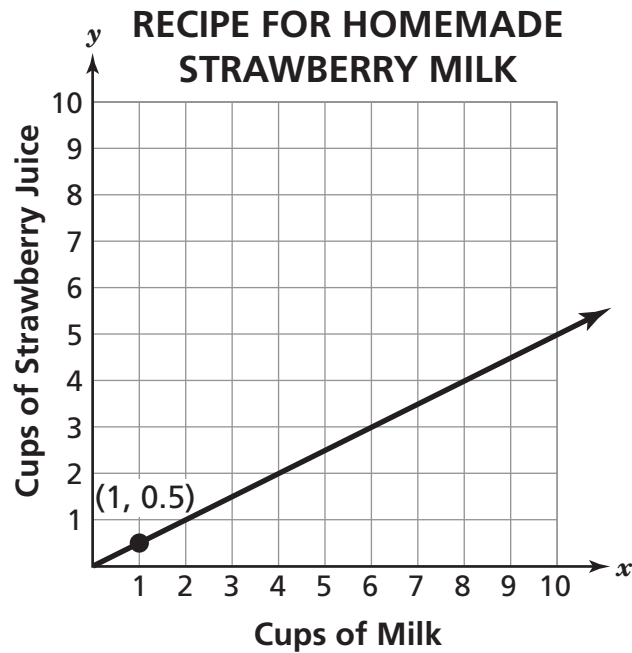
53 The fountain in the middle of a park is circular, with a diameter of 16 feet. There is a walkway that is 3 feet wide that goes around the fountain.



What is the approximate area of the walkway? Use 3.14 for π .

- A** 179 ft^2
- B** 159 ft^2
- C** 28 ft^2
- D** 16 ft^2

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 (1, 0.5)?

- A** For every 0.5 cup of milk, there should be 0.5 cup of strawberry juice.
- B** For every 0.5 cup of milk, there should be 1 cup of strawberry juice.
- C** For every 1 cup of milk, there should be 0.5 cup of strawberry juice.
- D** For every 1 cup of milk, there should be 1 cup of strawberry juice.

55

Makoto and his friends rolled two fair number cubes 500 times and recorded the sum of the numbers shown on the cubes each time. On 42 of the trials the sum was 10. Which of these is most likely the probability that the sum of the numbers shown on the cubes is 10 when two fair number cubes are rolled?

A $\frac{1}{6}$

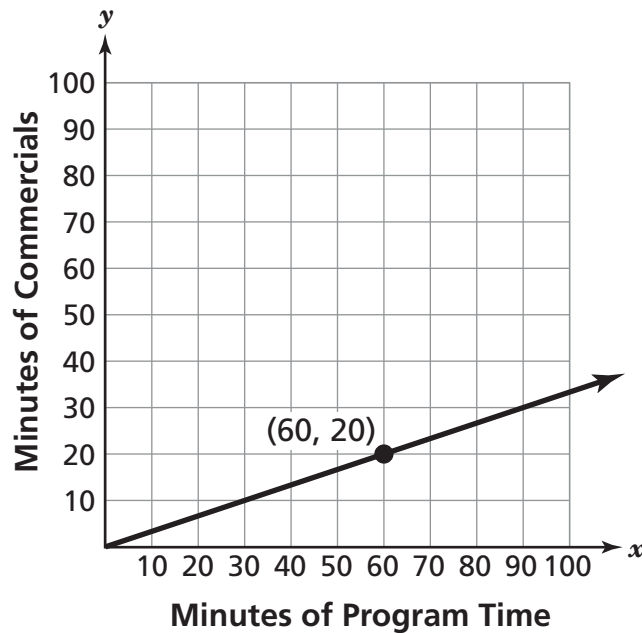
B $\frac{1}{12}$

C $\frac{1}{25}$

D $\frac{1}{50}$

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

**RELATIONSHIP BETWEEN
PROGRAM TIME AND COMMERCIALS**



Which statement is correct based on the point (60, 20)?

- A** If you watch TV for 60 minutes, you can expect to see 20 minutes of commercials.
- B** If you watch TV for 60 minutes, you can expect to see 20 minutes of programs.
- C** If you watch TV for 80 minutes, you can expect to see 20 minutes of commercials.
- D** If you watch TV for 80 minutes, you can expect to see 20 minutes of programs.

57 A gardener found that he was able to plant $\frac{1}{4}$ of a packet of flower seeds in $\frac{1}{5}$ of a garden. At this rate, how much of the garden would he cover with the entire packet of seeds?

A $\frac{1}{20}$

B $\frac{4}{5}$

C $\frac{5}{4}$

D $\frac{9}{2}$

58 There are 24 students in Ms. Perez's homeroom. One student will be randomly selected to act as a representative on the student council. If there are 9 boys and 15 girls in the class, what is the probability that the representative will be a boy?

A $\frac{1}{24}$

B $\frac{1}{9}$

C $\frac{3}{8}$

D $\frac{3}{5}$

59

The commission Gary earns is proportional to the cost of the shoes he sells. Gary earns \$15 in commission for every \$150 worth of shoes that he sells. Which equation gives the total commission, C , Gary will earn based on the cost, s , of the shoes he sells?

A $C = \frac{1}{15}s$

B $C = \frac{1}{10}s$

C $C = 10s$

D $C = 15s$

60

What is the result when $0.81x - 0.45$ is subtracted from $3.28x + 1.4$?

A $4.09x + 0.95$

B $3.67x + 1.05$

C $2.47x - 0.95$

D $2.47x + 1.85$

61

A submarine starts at a position relative to sea level of -45 meters. The submarine then changes its position at a rate of -6 meters per minute. What is the submarine's position after 7 minutes?

A -3 meters

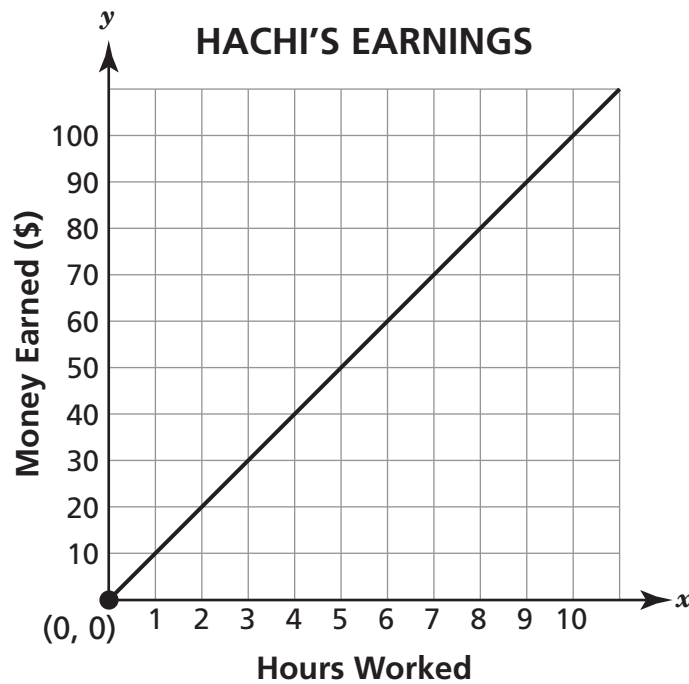
B -44 meters

C -58 meters

D -87 meters

Go On

The graph shows the amount of money Hachi earns at his job in relation to the number of hours he works.



What does the point (0, 0) mean?

- A** Hachi does not earn any money if he does not work.
- B** Hachi does not earn any money when he works.
- C** Hachi worked 0 days last week.
- D** Hachi earned \$0 last week.

63 Which *best* describes the probability of rolling a 7 on a number cube that is numbered from 1 through 6?

- A** The probability is 0 because it is impossible for the cube to land on 7.
- B** The probability is close to 1 because it is likely the cube will land on 7.
- C** The probability is close to 0 because it is unlikely the cube will land on 7.
- D** The probability is 1 because it is likely the cube will land on 7.

64 Dan painted $\frac{3}{4}$ of a wall using $\frac{1}{4}$ of a can of paint. How many walls can he paint using one can of paint?

- A** 4
- B** 3
- C** $\frac{1}{2}$
- D** $\frac{3}{16}$

Go On

Karley constructed the table below to determine the amount of fencing needed to go around a rectangular garden with a length of 8 yards and different widths.

Width of Garden	Fencing Needed
2 yards	20 yards
3 yards	22 yards
4 yards	24 yards
5 yards	26 yards

Which statement **best** describes the relationship between the width of the garden and the amount of fencing needed?

- A** The amount of fencing needed is proportional to the width of the garden, because there is a constant ratio of 2 yards of fence to 1 yard of width.
- B** The width of the garden is proportional to the amount of fencing needed, because a graph of the relationship shows a straight line.
- C** The relationship between the amount of fencing and the width of the garden is not proportional, because a graph of the relationship does not show a straight line.
- D** The ratio of fencing, in yards, to width, in yards, is not constant for all data pairs in the table, so the relationship is not proportional.

What is the result when $\frac{1}{8}x - 2\frac{5}{7}$ is subtracted from $3\frac{1}{4}x + 7\frac{1}{14}$?

- A** $3\frac{1}{8}x + 9\frac{11}{14}$
- B** $3\frac{1}{8}x + 4\frac{5}{14}$
- C** $-3\frac{1}{8}x - 4\frac{5}{14}$
- D** $-3\frac{1}{8}x - 9\frac{11}{14}$

67

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 lowest price per pound for the cheese?

- A** Store A
- B** Store B
- C** Store C
- D** Store D

68

Parker is making a snack mix of 0.75 pound of yogurt-covered raisins and 0.75 pound of mixed nuts. The prices of the ingredients are shown in the table below.

BULK FOODS PRICES

Food Item	Price per Pound
yogurt covered raisins	r
mixed nuts	\$3.20

Parker writes the expression $0.75r + 0.75(3.20)$ to represent the total cost of the snack mix. Which phrase describes another way to write the expression?

- A** the product of 0.75 and the sum of r and \$3.20
- B** the product of 1.5 times the sum of r and \$3.20
- C** the difference of r and \$3.20 multiplied by the 0.75
- D** the sum of \$1.25 and \$3.20 multiplied by 1.5

STOP

Answer questions 69 through 78. You may use a calculator.

- 69** The table shows the elevations of 6 cities in California.

City	Elevation (m)
Westmorland	-48
Brentwood	24
Holtville	-3
Imperial	-18
Bombay Beach	-69
Los Altos	48

Part A

How many meters greater is the elevation of Brentwood than the elevation of Bombay Beach?

Show your work.

Answer _____

Part B

What is the difference in elevation between Los Altos and Westmorland?

Show your work.

Answer _____

Part C

Angel says that Imperial is -6 times as far below sea level as Holtville. Explain Angel's error.

Show your work.

Answer _____

Go On

70

A florist sold bouquets of red roses to 15 of the first 20 customers who came into his shop.

Part A

What is the experimental probability that a random customer in that group bought a bouquet of red roses?

Answer _____

Part B

Based on the experimental probability, how many bouquets of red roses should the florist expect to sell on a day with 120 customers?

Show your work.

Answer _____

71

On a road trip, Maura drove at a speed of 60 miles per hour for the first two hours. She then increased her speed by 25%.

Part A

How fast was Maura driving after she increased her speed?

Show your work.

Answer _____ miles per hour

Part B

If Maura continues to drive at her increased speed, write an equation to find the total distance, d , in miles, that Maura will have travelled for any time, x , in hours, longer than 2 hours.

Equation _____

Part C

Using the equation from Part B, how far would Maura travel in 5 hours?

Show your work.

Answer _____ miles

Go On

Christy went jogging on Saturday. The table shows how far she had jogged after various times.

Distance (miles)	10	15	20
Time (hours)	2	3	4

Part A

Christy subtracted to find her jogging rate for each time period and said that her rate increased each hour, from 8 to 12 to 16 miles per hour. Is Christy correct? Explain why or why not.

Part B

Are the ratios of distance to time in the table equivalent? Explain.

73

Amit and Tiana simplified the expression $-4[8 + (-6) + 3]$ in different ways. Amit's first step was to add the three numbers within the brackets. Tiana's first step was to multiply each of the numbers within the brackets by -4 .

Part A

Write an expression to represent Tiana's first step. In the expression, show which numbers are being multiplied together, but don't find each of the products.

Answer _____

Part B

What should Tiana have written as the product when she multiplied -6 by -4 ?

Answer _____

Part C

Whose first step was correct—Amit's or Tiana's? Explain.

Go On

74

Susan joined a video rental club. She paid an initiation fee of \$12.75, and it cost \$0.75 per video that she rented.

Part A

Write an equation to show the total amount Susan paid to rent v videos.

Equation _____

Part B

While she was a member of the club, Susan paid a total of \$105.75. How many videos did she rent?

Show your work.

Answer _____

Administrators know that 50% of the students at Garden Grove Middle School ride the bus to school. Use the random number table below to conduct a simulation. Find the probability that out of 6 randomly selected students, at least 4 ride the bus to school. In the table, an even digit represents a student who rides the bus, and an odd digit represents a student who does not ride the bus. (For the purposes of this simulation, consider 0 to be an even number.)

RANDOM NUMBERS

231749	629344	382307	783250	813254
472305	828489	184387	576495	954218
312893	429784	419054	245397	285133
967543	728934	821340	912865	327540
298454	856343	886753	173242	248931
419565	428454	361853	396729	375206
400208	823553	519450	428448	315467
389564	743275	643905	983454	312569

Part A

Look at the top-left cell in the table. The digits in the cell represent 6 randomly selected students. Out of the 6 students, how many ride the bus to school?

Answer _____

Part B

There are 40 cells in the table. Repeat the process from Part A for each of the cells. Keep track of the number of cells in which at least 4 students ride the bus to school. How many of the 40 cells did you count?

Answer _____

Part C

Based on the simulation, what is the probability that at least 4 out of 6 randomly selected students ride the bus to school?

Answer _____

Go On

76

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

Part A

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

Show your work.

Answer _____

Part B

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

Show your work.

Answer _____

77

An employment agency sells its services to companies for a fixed rate of \$2,500 plus a commission of 42% of its sales. To cover the agency's expenses, it needs to earn at least \$8,800 a month.

Part A

Write an inequality that, when solved, will give the amount of sales the agency needs to cover its expenses.

Inequality _____

Part B

Graph the inequality on the number line.

**Go On**

78

Jana is taking pledges for a bike-a-thon fundraiser. Ivan pledged \$4.25, plus \$1.25 for each mile that Jana bikes. Vicky pledged \$5.75, plus \$0.75 for each mile that Jana bikes.

Part A

Write expressions for the number of dollars Ivan pledged and the number of dollars Vicky pledged. Use m for the number of miles that Jana bikes.

Answers _____

Part B

Add the two expressions from Part A to find the combined amount that Ivan and Vicky pledged in terms of m .

Show your work.

Answer _____

Part C

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

Show your work.

Answer _____

STOP

Ready® New York CCLS Mathematics Practice Test 1, Grade 7
Answer Form

Name _____

Teacher _____ Grade _____

School _____ City _____

Book 1

- 1. (A) (B) (C) (D)
- 2. (A) (B) (C) (D)
- 3. (A) (B) (C) (D)
- 4. (A) (B) (C) (D)
- 5. (A) (B) (C) (D)
- 6. (A) (B) (C) (D)
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- 8. (A) (B) (C) (D)
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- 25. (A) (B) (C) (D)
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- 27. (A) (B) (C) (D)
- 28. (A) (B) (C) (D)
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- 30. (A) (B) (C) (D)
- 31. (A) (B) (C) (D)
- 32. (A) (B) (C) (D)
- 33. (A) (B) (C) (D)
- 34. (A) (B) (C) (D)

Book 2

- 35. (A) (B) (C) (D)
- 36. (A) (B) (C) (D)
- 37. (A) (B) (C) (D)
- 38. (A) (B) (C) (D)
- 39. (A) (B) (C) (D)
- 40. (A) (B) (C) (D)
- 41. (A) (B) (C) (D)
- 42. (A) (B) (C) (D)
- 43. (A) (B) (C) (D)
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- 58. (A) (B) (C) (D)
- 59. (A) (B) (C) (D)
- 60. (A) (B) (C) (D)
- 61. (A) (B) (C) (D)
- 62. (A) (B) (C) (D)
- 63. (A) (B) (C) (D)
- 64. (A) (B) (C) (D)
- 65. (A) (B) (C) (D)
- 66. (A) (B) (C) (D)
- 67. (A) (B) (C) (D)
- 68. (A) (B) (C) (D)

Book 3

- For questions 69 through 78,
write your answers in the book.
- 69. See page 34.
 - 70. See page 36.
 - 71. See page 37.
 - 72. See page 38.
 - 73. See page 39.
 - 74. See page 40.
 - 75. See page 41.
 - 76. See page 42.
 - 77. See page 43.
 - 78. See page 44.

Cut along the dotted line.