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

35 Maureen bought 3 pairs of shoes that cost $37.98 each. If the tax rate is 8%, how much did Maureen pay?

A $123.06

B $114.02

C $41.02

D $14.25

36 The Mulraney's home has 2,550 square feet of living space. A contractor is building an addition to their home that will increase the square footage by 8%. What will be the square footage of their home with the addition?

A 2,040 ft²

B 2,558 ft²

C 2,654 ft²

D 2,754 ft²

37 A bicycle normally sells for $237.99. It is now on sale for 25% off. As an employee, Baron is able to save an extra 10% off the sale price. How much, to the **nearest dollar,** would Baron need to pay for the bicycle?

A $156

B $162

C $174

D $205

38 The table shows the high temperatures recorded in Tanya's hometown over seven days.

HIGH TEMPERATURES

Day	Temperature (°C)
Sunday	10
Monday	12
Tuesday	13
Wednesday	8
Thursday	11
Friday	14
Saturday	9

What is the mean daily high temperature over those seven days?

A   6°C

B   8°C

C   11°C

D   14°C

Go On

39 Which of the following situations could be represented by the expression $^-3 + 3$?

A Nancy owes $3 and then charges another $3.

B Jason pays $3 on the $3 he owes in fines.

C There is a change in temperature from $^-3°F$ to $3°F$.

D A toy car travels at a rate of 3 meters per minute for 3 minutes.

40 Amber has some state quarters in her pocket. She collects the following data by randomly pulling one quarter, recording the state, and then replacing it.

New York	Connecticut	New York	New York	Rhode Island
Connecticut	New York	Pennsylvania	Connecticut	Rhode Island
New York	Rhode Island	Connecticut	Pennsylvania	New York
Pennsylvania	New York	New York	Connecticut	Pennsylvania
New York	Pennsylvania	Rhode Island	Rhode Island	New York

Which is the best estimate of the number of times Amber would pull out a New York quarter if she pulled out a quarter another 300 times?

A 60

B 90

C 120

D 180

41 The sum of four consecutive odd numbers is 40. What is the greatest of the four numbers?

A   15

B   13

C   9

D   7

42 Which expression is equivalent to $14 - 9$?

A $^-14 + 9$

B $^-9 - 14$

C $9 - (^-14)$

D $14 + (^-9)$

43 A rectangle has a perimeter of $8s \times \frac{1}{4}$ units. Which of the following could *not* be the dimensions of the rectangle?

A $3s$ units long and $s \times \frac{1}{8}$ units wide

B $2s$ units long and $2s \times \frac{1}{8}$ units wide

C $3s \times \frac{1}{16}$ units long and $s \times \frac{1}{8}$ units wide

D $2s \times \frac{1}{16}$ units long and $2s \times \frac{1}{16}$ units wide

Go On

44 What value of x makes this equation true?

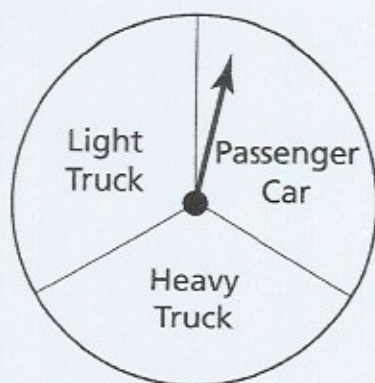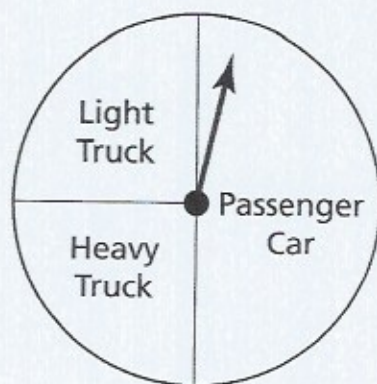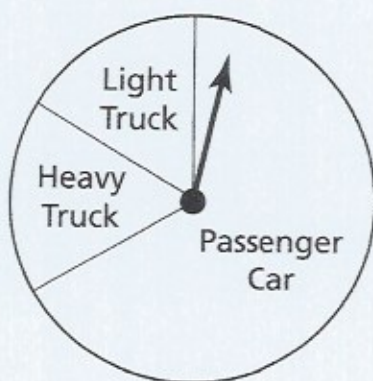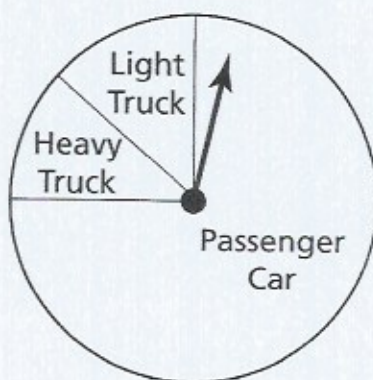$$\frac{6x}{-4} = 6\left(\frac{-1}{2}\right)$$

A $^-3$

B $^-2$

C 2

D 3

45 Patrick read 20 pages of his book in 4 hours. Todd read 25 pages in 5 hours. Did both boys read at the same rate?

A No, because $\dfrac{25 \text{ pages}}{4 \text{ hours}} > \dfrac{20 \text{ pages}}{5 \text{ hours}}$.

B No, because $\dfrac{20 \text{ pages}}{4 \text{ hours}} < \dfrac{25 \text{ pages}}{5 \text{ hours}}$.

C Yes, because $\dfrac{25 \text{ pages}}{4 \text{ hours}} = \dfrac{20 \text{ pages}}{5 \text{ hours}}$.

D Yes, because $\dfrac{20 \text{ pages}}{4 \text{ hours}} = \dfrac{25 \text{ pages}}{5 \text{ hours}}$.

46 Mrs. Habib has 46.25 feet of border for a rectangular bulletin board in her classroom. The board is 3.75 feet tall and 8.3 feet wide. How much border will Mrs. Habib have left after she puts border around the board?

A 12.3 feet

B 22.15 feet

C 31.125 feet

D 37.95 feet

47 A traffic engineer records a sample of the types of vehicles that cross a bridge. She counts 72 passenger cars, 15 light trucks, and 13 heavy trucks. Which spinner could be used to **best** model the type of vehicle that will cross the bridge next?

A

Light Truck • Passenger Car • Heavy Truck

C

Light Truck • Passenger Car • Heavy Truck

B

Light Truck • Heavy Truck • Passenger Car

D

Light Truck • Heavy Truck • Passenger Car

48 A circular plate has a diameter of 9 inches. What is the area of the plate?

    A 12.56π in.^{2}

    B 16π in.^{2}

    C 20.25π in.^{2}

    D 81π in.^{2}

49 Allen surveyed the students in his social studies class to find how many hours of community service each had performed during the school year. The mean number of hours was about 12. Which statement can Allen correctly make about the numbers of hours of community service the students in his entire school have performed?

    A   More than half have performed at least 12 hours of community service.

    B   More have performed 12 hours than any other number of hours of community service.

    C   Half have performed less than 12 hours of community service.

    D   On average, each student performed 12 hours of community service.

50 Martin's class is organizing a concert to raise money for a charity. The graph below shows the relationship between the number of tickets sold, n, and the money collected, m.
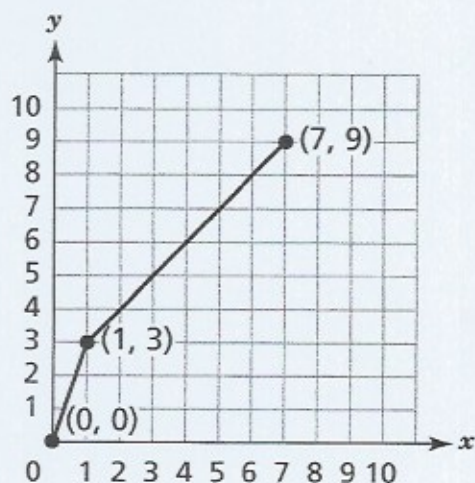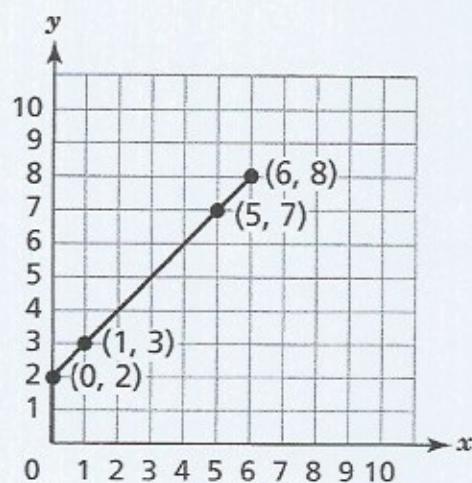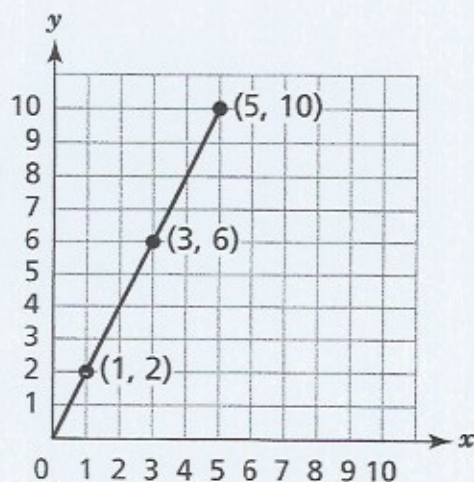
MONEY COLLECTED FROM CONCERT
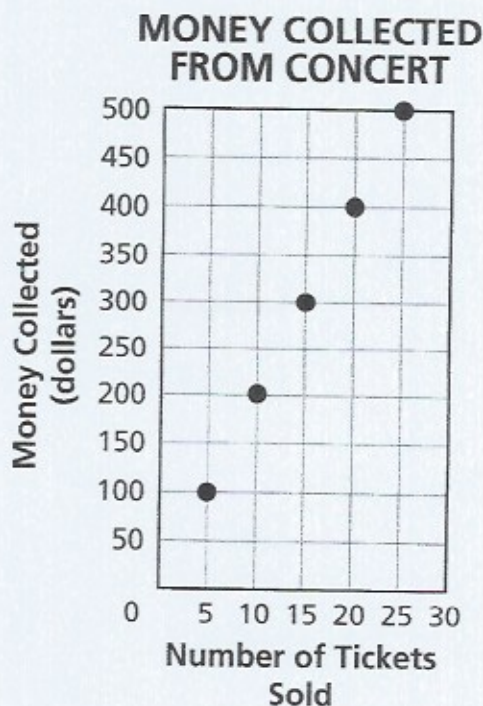
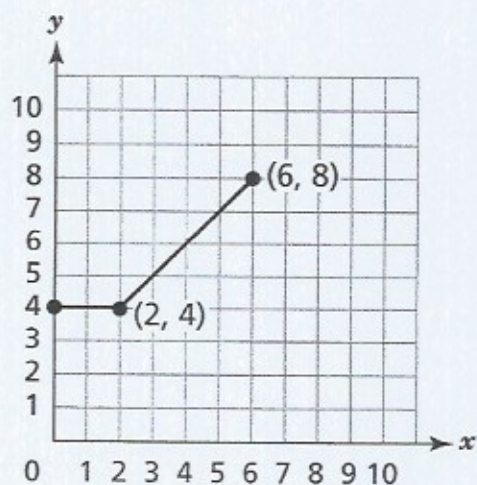
Which equation shows the relationship that is represented in the graph?

A $m = 20n$

B $m = 25n$

C $m = 200n$

D $m = 500n$

51 What is $(-4.8y + 20.1) - (12.7y + 9.3)$?

A $-17.5y + 10.8$

B $-15.3y - 22$

C $7.9y + 29.4$

D $17.5y + 10.8$

Go On

52 Which graph shows a proportional relationship between *x* and *y*?

A

C

B

D

53 A butcher is dividing a round of beef into 3 equal-sized roasts. If each roast weighs 7.9 pounds, and there are 1.4 pounds of beef left over, how much did the round of beef weigh?

    A   19.5 pounds

    B   22.3 pounds

    C   25.1 pounds

    D   27.9 pounds

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

    A   deposit $20 in the first week and withdraw $270 in the second week

    B   deposit $270 in the first week and withdraw $20 in the second week

    C   deposit $20 in the first week and withdraw $250 in the second week

    D   deposit $250 in the first week and withdraw $20 in the second week

Go On

55 The table shows the number of cars in certain mass ranges to pass through a toll booth.

Mass (kg)	Number of Cars
$w \leq 1,000$	9,532
$1,001 \leq w \leq 1,500$	22,909
$1,501 \leq w \leq 2,000$	42,410
$2,001 \leq w \leq 2,500$	14,628
$w \geq 2,501$	8,017

How many cars with a mass greater than 2,000 kilograms passed through the toll booth?

A   97,496

B   65,055

C   22,645

D   14,648

56 Will bought a package of 24 juice bottles for $7.44. Which equation relates the cost, c, of a package of juice bottles to the number of bottles, b, in the package?

A $c = 0.31b$

B $c = 3.10b$

C $c = 3.23b$

D $c = 7.44b$

57 Which expression is equivalent to $-3(-6b + 5)$?

A $\quad -18b - 15$

B $\quad -6b - 15$

C $\quad 6b - 15$

D $\quad 18b - 15$

58 Javier is scuba diving while on vacation. Yesterday, he dove to -13.74 feet. Today, he plans to go 4 times as deep. How far is Javier planning to dive today?

A $\quad -54.96$ ft

B $\quad -17.74$ ft

C $\quad -9.74$ ft

D $\quad -3.44$ ft

59 A store is having a 20% off sale. Michael says that he can find the sale price of an item that has a regular price of p by evaluating the expression $0.8p$. Susan says that she can find the sale price for the same item by evaluating the expression $p - 0.2p$. Who is correct?

A $\quad$ Neither is correct.

B $\quad$ Michael

C $\quad$ Susan

D $\quad$ Both are correct

Go On

60 The graph shows the relationship between the amount of time Sheila rides her bicycle and the distance she travels.

CYCLING DISTANCES
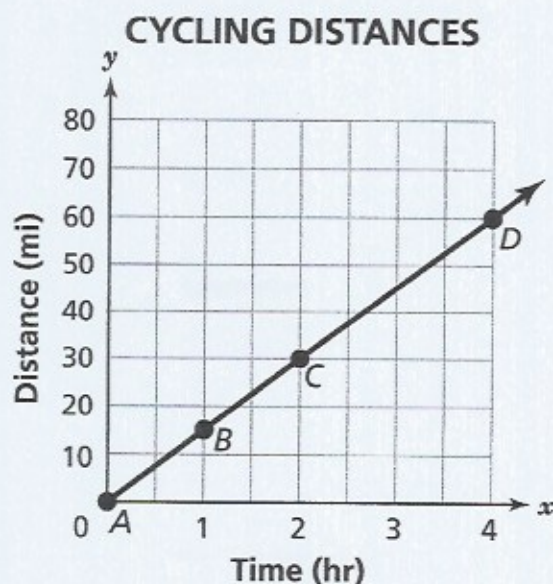
Which point on the graph represents Sheila's average speed in miles per hour?

A Point A

B Point B

C Point C

D Point D

61 Sakiya surveyed students in her school about their favorite sports. On Monday, she randomly surveyed 85 students in the cafeteria. On Tuesday, she surveyed 15 of her teammates on the school soccer team. Which statement **best** describes the samples Sakiya used?

A Neither sample represents the school population.

B Both samples likely represent the school population.

C The data gathered on Tuesday most likely represent the school population, but the data gathered on Monday most likely do not.

D The data gathered on Monday most likely represent the school population, but the data gathered on Tuesday most likely do not.

62 Sarah uses $\frac{3}{4}$ pound of blueberries to make $\frac{2}{3}$ cup of jam. How many pounds of blueberries does she need to make each cup of jam?

A $\frac{1}{12}$

B $\frac{1}{2}$

C $1\frac{1}{8}$

D $1\frac{5}{12}$

63 According to the weather report, there is a 25% chance of snow in the mountains tomorrow. How likely is it to snow tomorrow in the mountains?

A It is unlikely to snow tomorrow because the probability of snow is greater than 0 but less than 0.5.

B It is likely to snow tomorrow because the probability of snow is greater than 0.

C It is certain to snow tomorrow because the probability is near 1.

D It is impossible that it will snow tomorrow because the probability is near 0.

Go On

64 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?

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

B $\quad \frac{2}{5}$

C $\quad \frac{2}{3}$

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

65 Jasmine took a cab home from her office. The cab charged a flat fee of $4, plus $2 per mile. Jasmine paid $32 for the trip. How many miles was the cab ride?

A $\quad$ 5.33

B $\quad$ 7.50

C $\quad$ 14

D $\quad$ 26

66 On a winter morning, the temperature before sunrise was $-11°F$. The temperature then rose by $\frac{1}{2}$ degree each hour for 7 hours before dropping by $2\frac{1}{4}$ degrees each hour for 3 hours. What was the temperature, in degrees Fahrenheit, after 10 hours?

A $\quad -1\frac{1}{4}$

B $\quad -10\frac{1}{4}$

C $\quad -14\frac{1}{4}$

D $\quad -21\frac{1}{4}$

67 Randy drew a rectangle inside another with the size shown below on a piece of paper. He places the paper outside during a light rain.
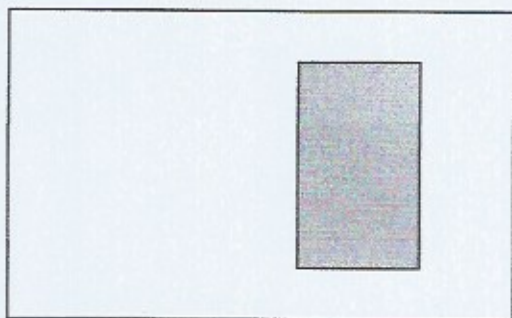
What is the approximate probability that a raindrop that lands on the paper will fall outside the shaded region?

A   16%

B   40%

C   60%

D   84%

68 Which table shows a proportional relationship between x and y?

x	y
7	17
8	18
9	19

A

x	y
7	21
8	24
9	27

B

x	y
7	49
8	64
9	81

C

x	y
7	14
8	24
9	36

D

STOP