1 Based on a weather report, the probability that it will rain tomorrow is 0.13. Which word describes the likelihood that it will rain tomorrow?

A   certain

B   impossible

C   likely

D   unlikely

2 Two stores each advertise a discount on the same type of watch. At both stores, the original price of the watch was $35.00.

- Store A discounts the price of the watch by 20%.

- Store B discounts the price of the watch by 15%.

How much less is the discounted price of the watch at Store A than the discounted price of the watch at Store B ?

A $1.75

B $5.00

C $5.25

D $7.00

GO ON

4 A spinner has five equal-sized sections colored blue, red, orange, yellow, and green. The arrow on the spinner was spun 50 times during an experiment. The results are shown in the table below.

RESULTS OF EXPERIMENT

Color	Frequency
Blue	12
Red	15
Orange	6
Yellow	10
Green	7

Based on the results, what is the experimental probability that on any one spin, the arrow will land on the red section?

A $\dfrac{1}{15}$

B $\dfrac{1}{5}$

C $\dfrac{3}{7}$

D $\dfrac{3}{10}$

5 Which expression is equivalent to $-3(2x - 8) + 4x$?

A $-2x - 8$

B $-2x + 24$

C $-10x - 8$

D $-10x + 24$

GO ON

9 The data set shown below represents the distribution of daily high temperatures in a city for 8 days.

79, 73, 72, 70, 72, 66, 81, 75

What is the median daily high temperature, in degrees Fahrenheit, in the city?

A   71

B   72.5

C   73

D   73.5

10 The menu at an ice cream store is shown below.

ICE CREAM MENU		
Size	**Flavor**	**Topping**
Small	Vanilla	Dip
Medium	Chocolate	Sprinkles
Large	Strawberry	Crunch Coat

How many different choices of one size, one flavor, and one topping can be made from the menu?

A   3

B   9

C   18

D   27

GO ON

11 The cost for 10 ounces of organic blueberries is $2.70. Which equation can be used to determine x, the cost, in dollars, for 30 ounces of organic blueberries?

A $\dfrac{10}{2.7} = \dfrac{x}{30}$

B $\dfrac{2.7}{10} = \dfrac{30}{x}$

C $\dfrac{10}{2.7} = \dfrac{30}{x}$

D $\dfrac{2.7}{30} = \dfrac{x}{10}$

19 Which expression has the same value as the expression shown below?

$$-\frac{3}{8} - \frac{7}{8}$$

A $\quad \frac{3}{8} + \frac{7}{8}$

B $\quad -\frac{3}{8} + \frac{7}{8}$

C $\quad \frac{3}{8} + \left(-\frac{7}{8}\right)$

D $\quad -\frac{3}{8} + \left(-\frac{7}{8}\right)$

20 A chef made 150 cups of chili and sold 60% of it. A serving size of the chili is $1\frac{2}{3}$ cups. How many servings of chili were sold?

A 36

B 54

C 90

D 100

21 At sunset, a thermometer had a reading of 4°F. During the night, the temperature decreased 15°F. After the decrease, what is the total number of degrees that the temperature must change for the thermometer to read 0°F?

A 4°F

B 11°F

C 15°F

D 19°F

GO ON

25   A gardener uses a total of 61.5 gallons of gasoline in one month. Of the total amount of gasoline, $\frac{3}{5}$ was used in his lawn mowers. How many gallons of gasoline did the gardener use in his lawn mowers in the one month?

    A   12.3

    B   24.6

    C   26.5

    D   36.9

26   A machine in a factory makes $2\frac{1}{4}$ pounds of nails in $1\frac{1}{2}$ hours. At what rate, in pounds per hour, does the machine make nails?

    A $\frac{2}{3}$

    B $\frac{3}{4}$

    C $1\frac{1}{2}$

    D $3\frac{3}{4}$

28 The table below shows a proportional relationship between x and y.

x	y
0.50	0.750
1.25	1.875
3.00	4.500
6.75	10.125

What is the constant of proportionality for the relationship between x and y ?

A   0.25

B   0.50

C   1.50

D   1.75

31 Mr. Jensen purchased an airline ticket on a web site. The original price of the airline ticket was $473.00. He used a coupon code to receive a 20% discount. A sales tax of 12% was applied after the discount. What was the total purchase price of the airline ticket after the discount, including sales tax?

    A $105.92

    B $332.99

    C $423.81

    D $529.76

32 What is the value of $12.5 - \dfrac{31}{2} + 1\dfrac{1}{4}$?

    A -20.25

    B -17.25

    C $-\dfrac{17}{4}$

    D $-\dfrac{7}{4}$

33 On a map, two cities are 2.8 inches apart. The map has a scale of 1 inch to 25 miles. How far apart, in inches, would the same two cities be on a map that has a scale of 1 inch to 40 miles?

    A   1.20

    B   1.60

    C   1.75

    D   1.80

STOP

34 Katelyn wants to buy a $75.00 skateboard. She has $25.00 saved so far. She mows lawns to make extra money and earns $20.00 for each lawn she mows. Which inequality can be used to determine the number of lawns, x, she needs to mow to have enough money to buy the skateboard?

A $\quad 25 + 20x \leq 75$

B $\quad 25 + 20x \geq 75$

C $\quad 20 + 25x \leq 75$

D $\quad 20 + 25x \geq 75$

35 A coach compared the heights of the players on two different teams. The data set is shown in the table below.

HEIGHTS OF PLAYERS ON TWO TEAMS

Team A Player Heights (inches)	76	68	73	65	60	63	69	76
Team B Player Heights (inches)	63	73	64	70	70	67	75	62

Based on these data, which statement is true?

A The mean height of the players on Team B is greater than the mean height of the players on Team A.

B The mean height of the players on Team A is greater than the mean height of the players on Team B.

C The median height of the players on Team B is greater than the median height of the players on Team A.

D The median height of the players on Team A is greater than the median height of the players on Team B.

GO ON

36 What is the value of the expression below?

$$-36 \div 9 + 3(-7) + 2$$

A $\quad -23$

B $\quad -19$

C $\quad 9$

D $\quad 15$

37 A cook uses $1\dfrac{3}{4}$ teaspoons of salt to make $3\dfrac{1}{2}$ pounds of pasta. What is the unit rate, in teaspoons per pound, at which the cook uses salt to make pasta?

A $\quad \dfrac{1}{2}$

B $\quad 1$

C $\quad 1\dfrac{3}{4}$

D $\quad 2$

38 The expression $48y - 16$ represents the perimeter, in feet, of a square. Which expression represents the length, in feet, of each side of the square?

A $\quad 12y - 4$

B $\quad 12y - 16$

C $\quad 24y - 8$

D $\quad 48y - 4$

39 The equation $y = 4.3x$ can be used to determine the total cost, y, in dollars, of x pounds of apples. What does the number 4.3 represent in the equation?

    A   the number of apples in 1 pound

    B   the number of apples in x pounds

    C   the cost of 1 pound of apples

    D   the cost of x pounds of apples

40 Which expression is equivalent to the expression shown below?

$$2 + 3(2x + 5)$$

    A $7 + 6x$

    B $17 + 2x$

    C $17 + 6x$

    D $25 + 10x$

GO ON

41 A teacher surveys a random group of students about their preference for doing classwork online or on paper. The results are shown in the table below.

STUDENT CLASSWORK PREFERENCE

Preference	Number of Students
Online	17
Paper	8

Based on the results, how many students out of 350 will **most likely** have a preference to do their classwork online?

Show your work.

Answer _____ students

42 Marcy is buying prizes to give away at a fundraiser, as described below.

- She has $250.00 to spend.

- She buys 13 movie passes for $9.50 each.

- She buys 3 gift cards valued at $25.00 each.

- She will use the rest of the money to buy candy bars that cost $1.75 each.

What is the greatest number of candy bars she can buy with the rest of the money?

Show your work.

Answer _____ candy bars

43 At a company, a copy machine prints 175 pages in 5 minutes. If the number of pages printed is proportional to the time, in minutes, what is the unit rate?

Show your work.

Answer _____ pages per minute

44 A cook removes a package of food from a freezer and begins to defrost the package.

- The initial temperature of the package of food is $-15°\text{F}$.

- At noon, the temperature of the package of food has increased to $35°\text{F}$.

What is the total change in temperature, in degrees Fahrenheit, for the package of food?

Show your work.

Answer _____ $°\text{F}$

GO ON

45 The members of a school club are selling tickets for a fundraiser. The goal for the fundraiser is to earn $50.00 each day from ticket sales. The list below shows the percent of the goal reached each day.

- On the first day, the members earned 90% of their daily goal.

- On the second day, the members earned 6% more than their daily goal.

- On the third day, the members earned 14% less than their daily goal.

How much money, in dollars, did the members earn from ticket sales on all three days?

Show your work.

Answer $ _____

46 A student incorrectly simplifies an expression. The expression and the student's work are shown below.

$$5 - \left(\frac{40}{5} \right)$$

Step A: $5 + \left(\frac{-40}{-5} \right)$

Step B: $5 + 8$

Step C: 13

In which step did the student first make an error? Be sure to include the correct value of the expression in simplest form in your answer.

Explain your answer.

_____

_____

_____

47 Ms. Boi spent a total of $175.00 for 4 admission tickets and for parking at a baseball game. The cost of each admission ticket was the same amount, including tax. The cost of parking was $25.00. Write an equation that can be used to determine t, the cost, in dollars, of each admission ticket, including tax.

Equation _____

What was the cost, in dollars, of each admission ticket, including tax?

Show your work.

Answer $ _____

48 A company manufactures water bottles. The list below describes the number of water bottles manufactured in three months.

- February: 4,100 water bottles

- March: 7% more water bottles than in February

- April: 500 more water bottles than in March

What is the percent increase, to the nearest percent, in the number of water bottles the company manufactured from February to April?

Show your work.

Answer _____ %

STOP