

Name: _____

Date: _____

1. The attendance for weekend performances of a concert was 1,994 for Friday night, 2,041 for Saturday night, and 1,991 for Sunday night. Which is the BEST estimate of the concerts' total attendance?

- A. 2,000
 - B. 4,000
 - C. 6,000
 - D. 8,000
-

2. What is 38.1 rounded to the nearest whole number?

- A. 31
 - B. 38
 - C. 39
 - D. 40
-

3. Martha's pet ferret measures 42.27 centimeters long.



What is that length rounded to the nearest tenth of a centimeter?

- A. 42.0 centimeters
- B. 42.1 centimeters
- C. 42.2 centimeters
- D. 42.3 centimeters

4. A weather forecaster checked and emptied a rain gauge six times one day.

The measurements in inches were 0.243, 0.595, 0.903, 0.756, 0.398, and 0.112. Which is the best estimate of the total rainfall that day?

- A. 2.0 in.
- B. 2.5 in.
- C. 3.0 in.
- D. 3.5 in.

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5. The solution to 421×32 is *closest to* —

- A. 120.
- B. 1,200.
- C. 12,000.
- D. 120,000.

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6. Kiko bought snacks to take to the park. She chose pretzels for \$2.99, 2 bottles of juice for \$1.09 each, and 1 package of turkey slices for \$4.95. What is the BEST estimate of the total cost of these items before tax?

- A. \$5.00
 - B. \$10.00
 - C. \$15.00
 - D. \$20.00
-

5_NBT - Part 2 (5_NBT_Part2)

7. Miguel wants to buy 3 bags of potato chips. Each bag of potato chips costs \$2.69. If he uses a coupon for \$1.00 off the price of one bag, how much will Miguel owe for the 3 bags of potato chips?

- A. \$1.69
- B. \$3.72
- C. \$7.07
- D. \$8.07

This online assessment item contains material that has been released to the public by the Massachusetts Department of Education.

8. A book is 1-inch thick, not including the cover. If the book contains 364 sheets of paper, which measure is closest to the thickness of one sheet of paper?

- A. 0.003 in.
- B. 0.030 in.
- C. 0.300 in.
- D. 0.364 in.

This online assessment item contains material that has been released to the public by the Massachusetts Department of Education.

9. Ernesto drove his car 257 miles on 8.3 gallons of gasoline. What operation is needed to find the number of miles per gallon?

- A. +
- B. -
- C. \times
- D. \div

10. One box of candy costs \$0.59. How much do 12 boxes cost? Which operation is needed to solve the above problem?

- A. \div
- B. +
- C. -
- D. \times

11. It takes Tomas about 2 hours to deliver the 57 newspapers on his route. He earns \$0.10 for each newspaper he delivers. About how much does Tomas make per hour?

- A. \$8.00
 - B. \$6.00
 - C. \$3.00
 - D. \$2.00
-

12. Each night Ann and her family empty their pockets, purses, and wallets and place all of the pennies, nickels, dimes, and quarters in a large container. At the end of the month, Ann helps her father count the coins. If Ann counted 345 pennies, 142 dimes, and 60 quarters, how much money did she count?

- A. \$32.65
 - B. \$47.65
 - C. \$385.45
 - D. \$547.00
-

13. Elena's uncle took her and three cousins to the ice cream store. The cousins each ordered milkshakes for \$1.40 each and Elena had a double dip of peach ice cream that cost \$1.25. What was the total cost of the order?

- A. \$2.65
 - B. \$4.45
 - C. \$5.45
 - D. \$6.45
-

14. Eriko is trying to estimate the number of candy bars she would have to sell in order to collect \$10.00. If each candy bar cost \$0.48, about how many would she have to sell?

- A. 10
 - B. 20
 - C. 30
 - D. 40
-

15.

Oscar had \$15.39. He wants to divide this amount evenly between himself and two of his friends. How much should each person get?

- A. \$3.15
 - B. \$5.03
 - C. \$5.13
 - D. \$7.69
-

16.

Fran lives 1.5 miles from school. Bryce rides her bike 0.5 miles to school every day. Darren lives 0.7 miles farther than Bryce. How many miles do the three children travel to school everyday?

- A. 1.12
 - B. 2.2
 - C. 2.5
 - D. 3.2
-

17.

Alice bought two pairs of socks for \$2.54 each, including tax. She paid with a ten dollar bill. How much change should she receive?

- A. \$4.92
 - B. \$5.08
 - C. \$7.92
 - D. \$7.46
-

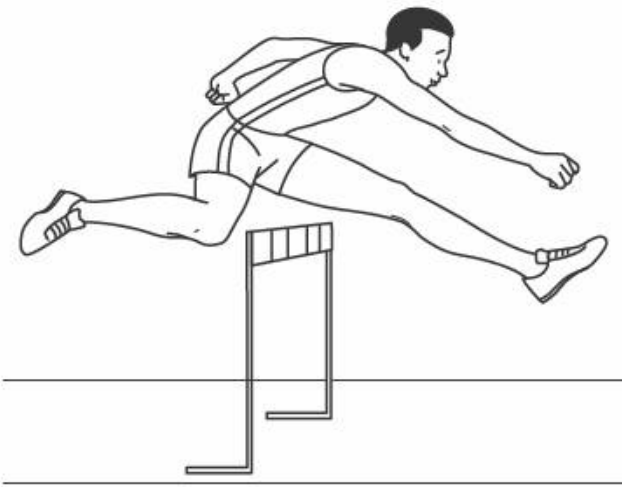
18.

Which operation completes the equation?

$$6.1 \text{ _____ } 3.9 = 10.0$$

- A. +
 - B. -
 - C. x
 - D. ÷
-

19. The men's 110-meter hurdles is an event in the Olympic games.



The distance from the starting line to the first hurdle is 13.72 meters. The distance from the first hurdle to the second hurdle is 9.14 meters. What is the total distance from the starting line to the second hurdle?

- A. 19.86 meters
- B. 22.86 meters
- C. 23.86 meters
- D. 24.86 meters

20. Which of the following will be a true statement if an equal sign (=) is placed in the box?

A. $5 + 2 \square 5 + 5$

B. $5 + 10 \square 10 - 5$

C. $5 + 5 \square 10 \times 2$

D. $5 + 5 \square 2 \times 5$

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21. A company sells packages of cotton balls. Each package contains 275 cotton balls. The company sent a box of 24 packages of cotton balls to a grocery store. What is the total number of cotton balls that the company sent to the grocery store?

A. 5,280

B. 5,500

C. 6,580

D. 6,600

22. Workers placed 4 additional rows of seating in each of the 8 theatres at a movie complex. Each additional row contained 28 seats. What is the total number of seats that were added to the movie complex?

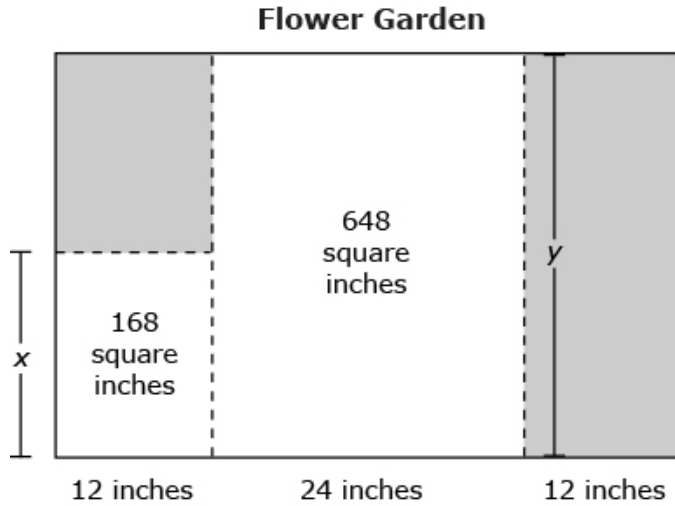
A. 886

B. 896

C. 906

D. 996

23. The figure shows 4 rectangular areas within a rectangular flower garden.



Part A

The gardener planted yellow flowers in the rectangular area labeled “168 square inches.” What is the missing dimension, x , of the rectangle where the yellow flowers are planted? Show your work.

Part B

The gardener planted red flowers in the rectangular area labeled “648 square inches.” What is the missing dimension, y , of the rectangle where the red flowers are planted? Show your work.

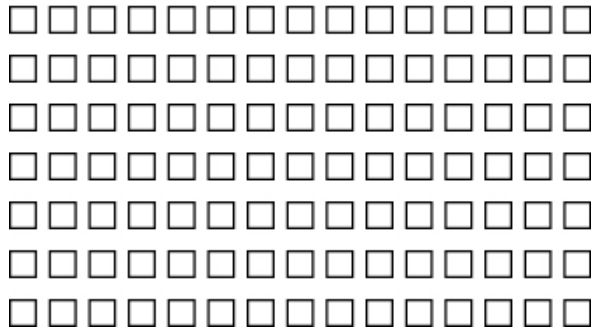
Part C

The gardener planted purple flowers in both of the shaded rectangular areas. How many square inches of the garden have purple flowers? Show your work and explain your answer.

**Be sure to complete ALL parts of the task.
Write your answer and show your work on the paper provided.
Do NOT type your answer in the text box below.**

24. A construction worker made a diagram to show the seats in Section A of an auditorium that he is building. Section A has seven rows as shown in the diagram.

Seats in Section A



Part A

Write an equation that shows the relationship between the number of rows, the number of seats per row, and the total number of seats in Section A.

Part B

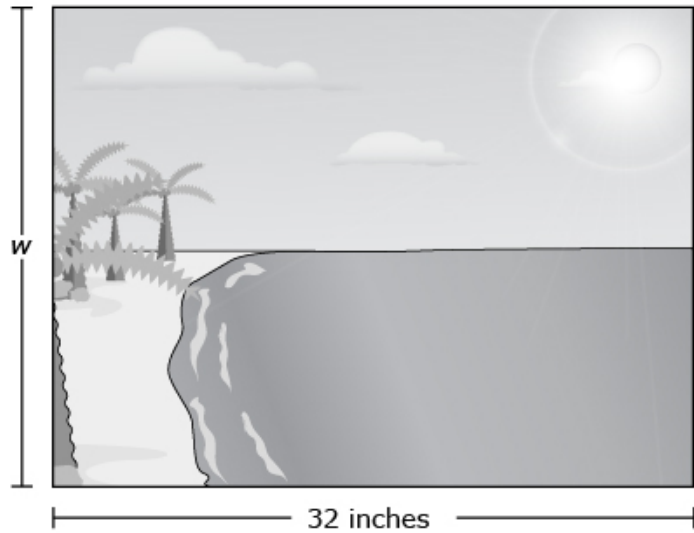
According to the plan, Section B in the auditorium will have a total of 240 seats, with an equal number of seats in each row. Section B has 9 more seats per row than Section A. How many rows are in Section B? Show your work.

Part C

In the original plan, Section C was going to have 20 rows with 34 seats per row. The plans were changed and $\frac{1}{4}$ of the rows were removed. Based on the new plans, how many total seats are in Section C? Show your work.

**Be sure to complete ALL parts of the task.
Write your answer and show your work on the paper provided.
Do NOT type your answer in the text box below.**

25. A customer brought a 768-square-inch poster into a crafts store to get it framed. The length of the poster is 32 inches.



Part A

What is the width, w , of the poster? Show your work.

Part B

A black frame is available with a width that is 4 inches greater than the width of the poster. The framed poster will cover exactly 1,008 square inches of wall space. What is the length of the black frame? Show your work.

Part C

A brown frame is available with a length and width both 3 inches greater than the width and length of the poster. How many square inches of wall space will the brown frame cover? Show your work.

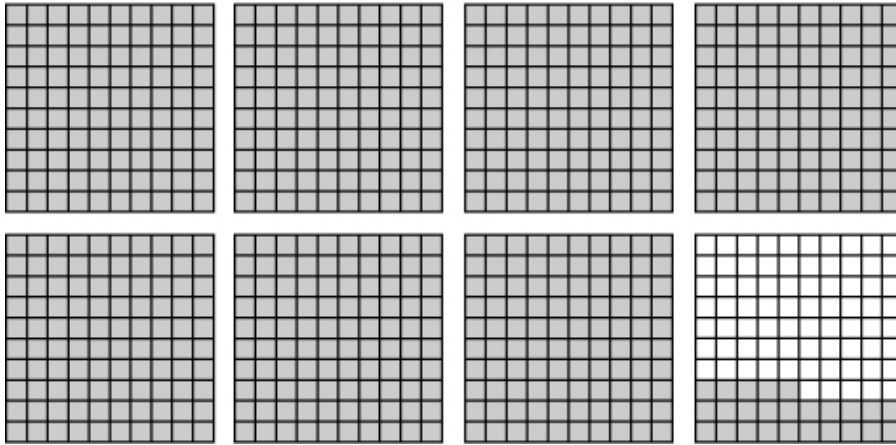
Part D

A white frame is the customer's favorite. The white frame covers 868 square inches of wall space. The length is 1 inch less than the length of the poster. Determine whether the frame is wide enough for the poster. Show your work and explain your answer.

**Be sure to complete ALL parts of the task.
Write your answer and show your work on the paper provided.
Do NOT type your answer in the text box below.**

26. The model shown represents the amount of money Ethan earned on his first leaf-raking job. Each hundredths block represents \$1.00.

First Leaf-Raking Job



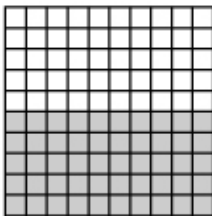
Part A

What is the total amount of money Ethan earned on his first leaf-raking job? Explain how you determined the amount.

Part B

The model shown below represents the additional amount of money Ethan earned on his second leaf-raking job compared to his first leaf-raking job.

Additional Amount Earned



What is the additional amount Ethan earned on his second leaf-raking job? Explain your answer.

Part C

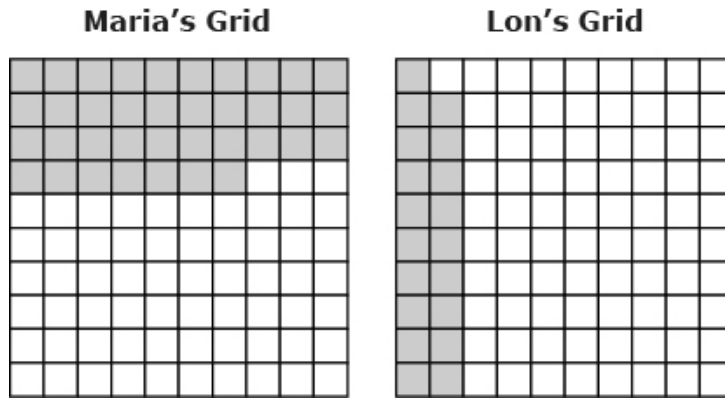
On Ethan’s third leaf-raking job, he earned twice the amount of his first leaf-raking job. What is the total amount Ethan earned on his third leaf-raking job? Show your work.

Part D

On Ethan’s fourth leaf-raking job, he earns \$1.60 less than his first leaf-raking job. Use words to describe the diagram that can be used to represent the amount Ethan earned on his fourth leaf-raking job.

**Be sure to complete ALL parts of the task.
Write your answer and show your work on the paper provided.
Do NOT type your answer in the text box below.**

27. Maria and Lon each started shading a hundredths grid before their lunch break. The picture shows how much they have shaded.

**Part A**

Compare the two decimals, shown by the shaded parts in the grids, using $>$, $=$, or $<$.

Part B

Maria continues to shade her grid. When she is finished shading the grid, the grid has twice as many boxes shaded. Write the total amount she has shaded as a decimal. Show your work or explain your answer.

Part C

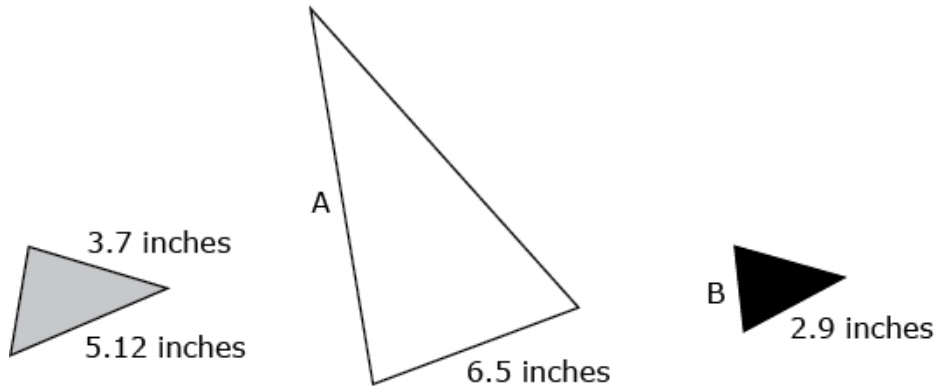
When Lon finishes shading his grid, the shaded part of his grid will be equal to the unshaded part of Maria's grid. How many more squares will Lon have to shade on his grid to make this true? Show your work or explain your answer.

Part D

Two students at Maria's and Lon's work table have shaded their hundredths grids to represent 0.61 and 0.48. What is the total number of shaded squares on all four students' shaded grids? Show your work or explain your answer.

**Be sure to complete ALL parts of the task.
Write your answer and show your work on the paper provided.
Do NOT type your answer in the text box below.**

28. The diagram shows the dimensions of the longest and shortest sides of three triangles.



Part A

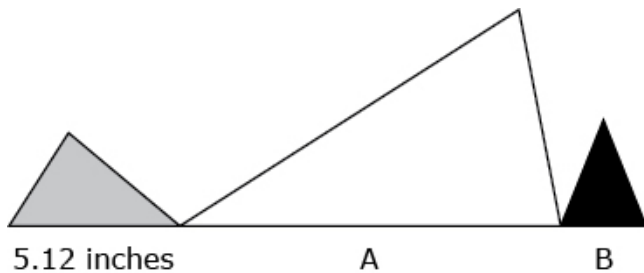
Side A of the white triangle is 2.5 times the length of the longest side of the gray triangle. What is the length, in inches, of side A? Show your work.

Part B

Side B of the black triangle is half the length of the longest side of the gray triangle. What is the length, in inches, of side B? Show your work.

Part C

The triangles will have the bases glued end-to-end on a paper strip, as represented in the diagram shown below.



What is the minimum length, in inches, the rectangular paper strip needs to be for all of the triangles to fit? Show your work.

Part D

The paper strip that will be used is 24 inches in length. The triangles will be centered on the paper strip with an equal space left on both ends. What will be the distance, in inches, from the one end of the paper strip to the nearest triangle? Show your work or explain your answer.

**Be sure to complete ALL parts of the task.
Write your answer and show your work on the paper provided.
Do NOT type your answer in the text box below.**

Answer Key

1. C) 6,000
2. B) 38
3. D) 42.3 centimeters

4. C) 3.0 in.

5. C) 12,000.

6. B) \$10.00

7. C) \$7.07

8. A) 0.003 in.

9. D) \div
10. D) \times
11. C) \$3.00
12. A) \$32.65
13. C) \$5.45
14. B) 20
15. C) \$5.13
16. D) 3.2
17. A) \$4.92
18. A) +
19. B) 22.86 meters

20. D) $5 + 5 \square 2 \times 5$

21. D) 6,600

22. B) 896

23.

24.

25.

26.

27.

28.