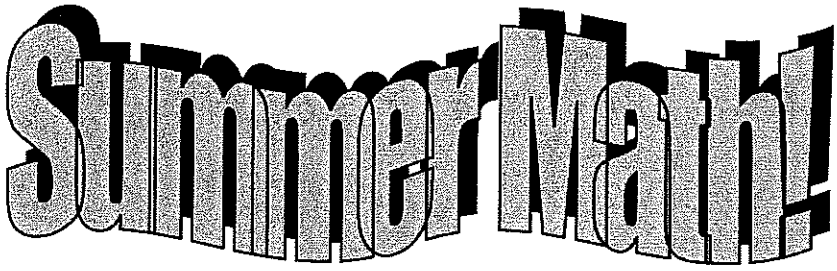


Hello Future 7th Graders,

In preparing for next year, it is important to continue practicing your math skills over the summer. In this packet, you will find math fact practice pages, MCAS practice pages and review pages. See below for instructions on each.

- **Fact pages**: Use these pages as a guide for practicing your math facts this summer. In entering the Seventh Grade, each of these pages should be finished in 2 minutes. Use a cell phone or a microwave to time yourself!!! See if you can beat your time! All four of these pages must be completed before returning to school.
- **MCAS and Review pages**: Please complete and return. ***ALL WORK MUST BE SHOWN EITHER ON THESE PAGES OR ON A SEPARATE SHEET OF PAPER.***

Have a wonderful summer! I look forward to seeing you in the fall!

Mr. Manzi

Your 7th Grade Math Teacher

E	3	5	*Sixty multiplication facts*	THE MAD MINUTE

4 ×9	9 ×8	2 ×7	5 ×6	3 ×9	7 ×0	9 ×7	4 ×4	9 ×9	3 ×5
4 ×5	1 ×9	8 ×1	6 ×3	8 ×5	9 ×3	7 ×8	6 ×4	6 ×7	9 ×6
8 ×7	5 ×4	3 ×7	5 ×9	5 ×3	6 ×8	5 ×5	8 ×9	9 ×2	2 ×6
6 ×6	6 ×9	5 ×8	8 ×3	6 ×5	8 ×6	7 ×2	5 ×1	2 ×8	7 ×4
1 ×9	3 ×0	7 ×6	4 ×8	4 ×7	7 ×9	9 ×4	7 ×3	3 ×6	4 ×3
2 ×5	7 ×7	3 ×4	2 ×9	9 ×5	8 ×4	3 ×8	4 ×6	8 ×2	0 ×8

E	2	2	*Sixty subtraction facts*	THE MAD MINUTE

15 −9	10 −8	14 −6	13 −4	10 −9	11 −2	16 −8	18 −9	12 −5	15 −6
13 −7	12 −4	5 −2	14 −5	17 −8	4 −0	9 −7	16 −7	8 −3	15 −8
6 −1	11 −8	8 −4	10 −2	16 −9	15 −7	11 −4	13 −8	10 −7	12 −3
13 −6	11 −5	14 −7	9 −4	9 −6	11 −3	13 −5	14 −9	7 −2	10 −1
11 −6	17 −9	10 −3	12 −8	11 −9	3 −0	12 −6	10 −4	11 −7	13 −9
6 −5	10 −6	9 −5	12 −7	10 −5	7 −6	12 −9	9 −2	14 −8	7 −2

F | 1 | 2 | *Sixty addition facts* | **THE MAD MINUTE**

6 +5	6 +6	4 +7	6 +6	3 +8	9 +5	6 +4	9 +3	9 +7	6 +3
7 +6	9 +8	7 +5	5 +9	9 +2	9 +9	4 +5	8 +7	2 +0	9 +4
3 +7	8 +6	7 +3	6 +2	0 +6	7 +1	9 +6	2 +9	4 +8	8 +3
4 +9	5 +7	7 +2	7 +4	8 +5	3 +9	7 +7	5 +8	3 +6	4 +2
8 +9	5 +6	5 +3	6 +7	6 +8	6 +9	8 +2	5 +2	7 +9	9 +1
8 +8	2 +7	2 +2	7 +8	5 +0	8 +4	8 +1	4 +6	0 +7	3 +4

F	3	2	*Sixty multiplication facts*	THE MAD MINUTE

0 ×5	4 ×9	8 ×6	2 ×0	3 ×9	6 ×7	5 ×8	9 ×2	6 ×5	4 ×7
3 ×8	4 ×8	5 ×7	7 ×6	8 ×1	8 ×9	2 ×6	3 ×7	9 ×9	7 ×7
9 ×6	3 ×6	2 ×5	2 ×4	7 ×5	7 ×9	4 ×3	8 ×4	9 ×8	1 ×6
9 ×5	2 ×7	7 ×8	0 ×8	4 ×4	4 ×6	9 ×2	8 ×7	8 ×5	6 ×6
8 ×8	9 ×4	9 ×7	3 ×5	7 ×3	6 ×9	5 ×6	4 ×0	5 ×4	6 ×4
5 ×5	6 ×8	5 ×9	4 ×5	7 ×1	6 ×3	7 ×4	8 ×3	1 ×9	9 ×3

Question 18 is an open-response question.

- **BE SURE TO ANSWER AND LABEL ALL PARTS OF THE QUESTION.**
- **Show all your work (diagrams, tables, or computations) in your Student Answer Booklet.**
- **If you do the work in your head, explain in writing how you did the work.**

Write your answer to question 18 in the space provided in your Student Answer Booklet.

18 A table can be used to show the relationship between the number of hours a painter works painting and the total amount the painter charges for painting. In your Student Answer Booklet, copy the table below about the painter's charges.

Painter's Charges

Number of Hours (h)	1	2	3	4	5
Total Charge for Painting (c)					

The painter charges $25 per hour to paint a room.

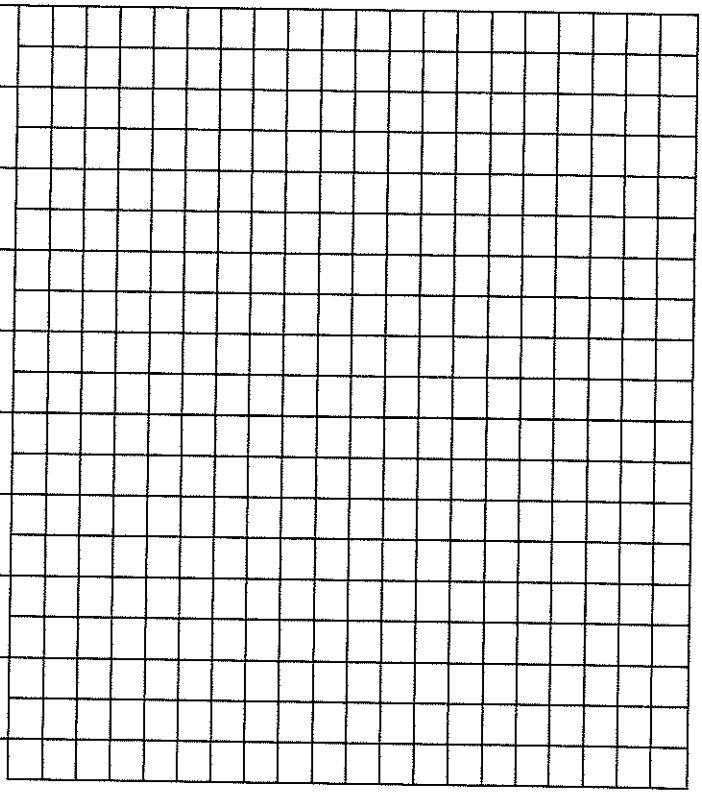
a. Complete the table you copied in your Student Answer Booklet to show the relationship between h, the number of hours the painter works, and c, the total amount, in dollars, the painter charges for painting.

b. Write an equation that can be used to find c, the total charge for h hours of painting.

It took the painter 13 hours to paint a room.

c. What is the total amount, in dollars, the painter charged for painting the room? Show or explain how you got your answer.

MCAS Open Response Question Answer Space



PRACTICE TEST

Read each problem. Circle the letter of the best answer.

1 Which situation can best be described using a negative integer?

A 2 dollars an hour raise

B 50 feet below sea level

C 30 minutes ahead of time

D 10 percent interest earned

2 Five cars are parked in a lot. What is the ratio of tires to steering wheels for these cars?

A 5 to 1 **C** 10 to 5

B 10 to 4 **D** 20 to 5

3 A cashier serviced 72 customers in 3 hours. What unit rate describes the number of customers serviced each hour?

A 3 customers per hour

B 24 customers per hour

C 32 customers per hour

D 72 customers per hour

4 Isabel earned $8,400 in a 24-week period. She earned the same amount of money each week. What amount of money did she earn each of those weeks?

A $200 **C** $350

B $240 **D** $400

5 Which of the following questions best represents a statistical question?

A Where is the local mall?

B What time does this store open?

C Who is the owner of that restaurant?

D How many hours a week do waiters work?

6 A pumpkin weighs 29.3125 pounds. A squash weighs 3.75 pounds. How much greater is the weight of the pumpkin than the weight of the squash?

A 8.1875 pounds

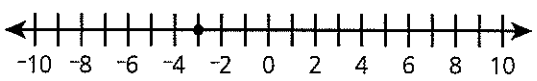
B 25.5625 pounds

C 26.4375 pounds

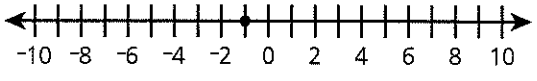
D 33.0625 pounds

7 Which number line shows the opposite of the opposite of -3?

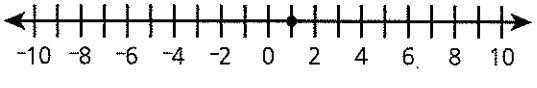
A



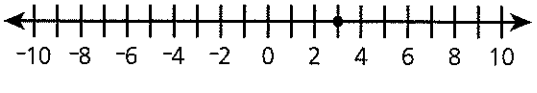
B



C



D



Read each problem. Circle the letter of the best answer.

8 Cassandra read 25 pages of a 125-page book. What percent of the book did she read?

A 15% **C** 25%

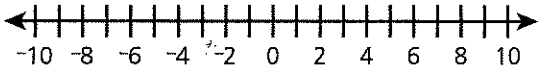
B 20% **D** 40%

9 Ronald wants to solve the equation $m + 7 = 23$. What should he do to both sides of the equation?

A add 7 **C** add 23

B subtract 7 **D** subtract 23

10 Use this number line to help answer the question.



Which statement is true?

A $-|2| = -2$ **C** $|-6| = -6$

B $-|-4| = 4$ **D** $-|8| = 8$

11 What two terms are being multiplied in the expression $5(x + 8)$?

A 5 and x **C** 5 and $8x$

B 8 and x **D** 5 and $x + 8$

12 There are 36 girls and 40 boys at a summer camp. The campers will be divided into equal-sized groups. Each group will have the same number of girls and the same number of boys. What is the greatest number of groups that can be formed?

A 4 **C** 8

B 6 **D** 12

13 What is the missing value in the table below?

n	$n^2 + 4$
1	5
2	8
3	13
4	?

A 16 **C** 20

B 18 **D** 22

14 Meg has 6 charm bracelets. Each bracelet has 12 charms on it. Which expression can be used to find the number of charms on all of Meg's bracelets?

A $6 + 12$ **C** 6×12

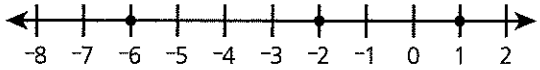
B $12 - 6$ **D** $12 \div 6$

15 Which inequality statement is true?

A $-1 < -2$ **C** $4 < -6$

B $-3 < 0$ **D** $-8 < -10$

16 Use this number line to help answer the question.



Which inequality statement is true?

A $-6 < -2 < 1$ **C** $-2 < -6 < 1$

B $-6 > -2 > 1$ **D** $-2 > -6 > 1$

Read each problem. Circle the letter of the best answer.

17 Which number sentence is true?

A $x + (y - z) = xy - xz$

B $x + (y \times z) = (x + y) \times z$

C $(x + y) + z = z + (x + y)$

D $x - (y - z) = (x - y) - z$

18 The quotient of 6 and n is 3. Which equation models this?

A $\frac{6}{n} = 3$

B $\frac{n}{6} = 3$

C $6 \times n = 3$

D $6 - n = 3$

19 A cheetah can run 3,300 feet in 30 seconds. Which fraction shows how fast the cheetah can run, in feet per second, written in lowest terms?

A $\frac{100}{1}$

B $\frac{110}{1}$

C $\frac{100}{3}$

D $\frac{110}{3}$

20 A bottle contains 240 milliliters of juice. How many liters of juice is this?

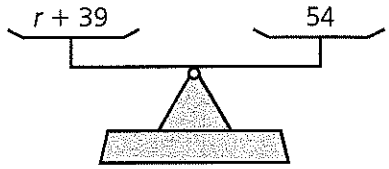
A 0.0240

B 0.240

C 24,000

D 240,000

21 Which value of r makes the scale below balanced?



A 15

B 25

C 83

D 93

22 Which expression is equivalent to $c + 2$?

A $c + 2c$

B $2c - 2c + 2$

C $3c - 3 + c + 1$

D $4c + 6 - 3c - 4$

23 A trapezoid has base lengths of 5 cm and 9 cm and a height of 6 cm. What is the area of the trapezoid?

A 42 cm^2

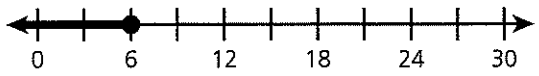
B 84 cm^2

C 135 cm^2

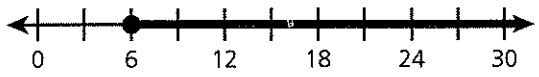
D 270 cm^2

24 The number of points Jake has in a video game is 2 times as great as the number of points Marc has. Jake has at most 12 points. Which number line shows the possible points Marc has?

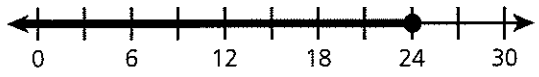
A



B



C



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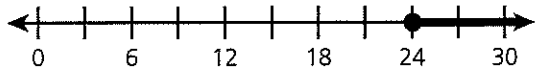
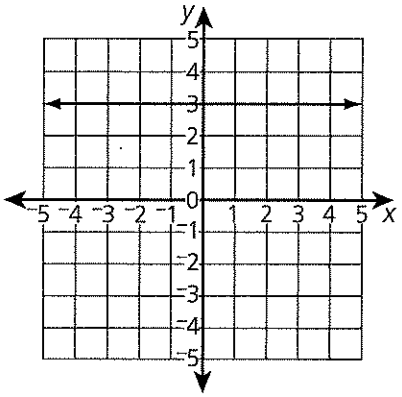


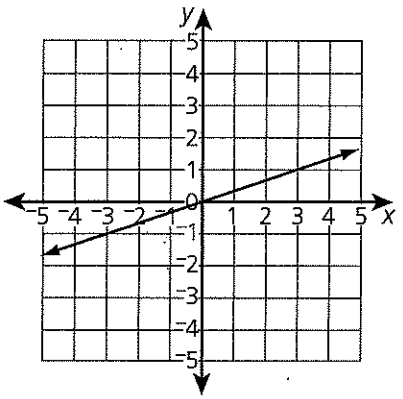
Read each problem. Circle the letter of the best answer.

25 Which graph shows the function $y = 3x$?

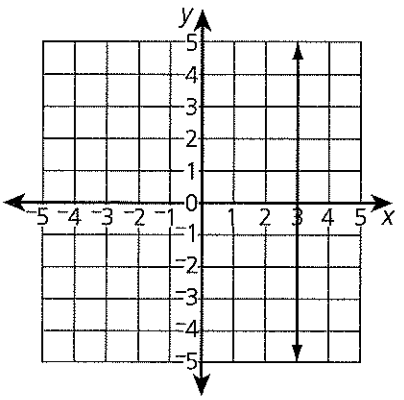
A



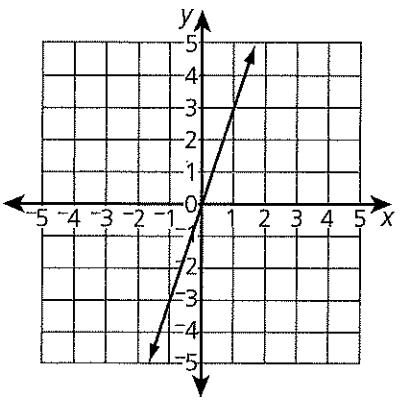
B



C



D



26 The formula for the approximate surface area of a sphere with a radius of r centimeters is shown below.

$$SA = 4(3)(r^2)$$

What is the approximate surface area, in square centimeters, of a sphere with a radius of 20 centimeters?

A 480 cm^2

B 720 cm^2

C 4,800 cm^2

D 7,200 cm^2

27 What is the rule for this input-output table?

Input	Output
4	12
6	14
8	16
10	18

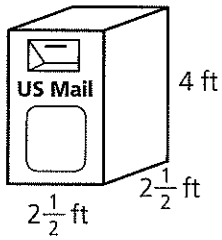
A add 2

B add 8

C multiply by 2

D multiply by 3

28 A mailbox is represented by the diagram below.



What is the volume of the mailbox?

A 9 ft^2

B 10 ft^2

C 25 ft^3

D 40 ft^3

Read each problem. Circle the letter of the best answer.

29 The number of vacation days each employee at a small company has is listed below.

11, 5 5 10 8 12 7 10 10

Which statement is true of the data?

A The mean is 10.

B The mode is 5.

C The range is 7.

D The median is 8.

30 The value of d in the inequality below represents the depth, in feet, of a cave.

$$d < -16$$

Which statement best describes d?

A The depth of the cave is 16 feet below ground.

B The depth of the cave is 16 feet above ground.

C The depth of the cave is less than 16 feet below ground.

D The depth of the cave is greater than 16 feet below ground.

Read each problem. Write your answer.

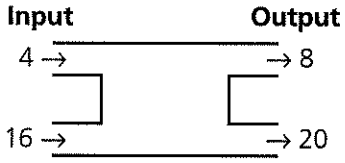
31 A store received a shipment of 160 T-shirts. Of these, 30 were small, 60 were medium, and the rest were large. What is the ratio of large T-shirts to small T-shirts? Write your answer three different ways.

Answer _____

32 The opposite of the opposite of a number is 7. What is the number?

Answer _____

33 A function machine is shown below.



What is the output from this function machine when the input is 50?

Answer _____

34 Cara and Jane multiplied the numbers 2.005 and 0.3. Cara got an answer of 6.015. Jane got an answer of 0.6015. Who got the correct answer, Cara or Jane? Explain how you know.

_____

_____

_____

35 What is the missing number in this table?

7	11	14	20
21	33	?	60

Answer _____

Read each problem. Write your answer.

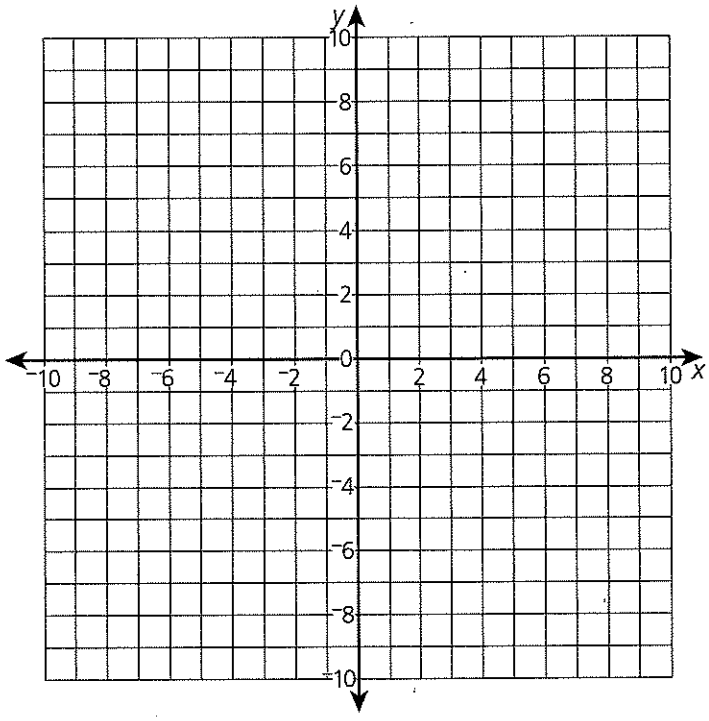
36 A package contains 3 cups of trail mix. A serving of trail mix is $\frac{1}{3}$ cup. How many servings of trail mix are in the package?

Answer _____

37 A 6-month membership costs $180. At this rate, how much would a 9-month membership cost?

Answer _____

38 Draw and label the polygon with vertices L (-3, 6), M (6, 3), N (6, -6), and P (-3, 0) on the coordinate plane below.



39 What conversion factors are used to convert gallons per hour to quarts per minute?

Answer _____

Read each problem. Write your answer.

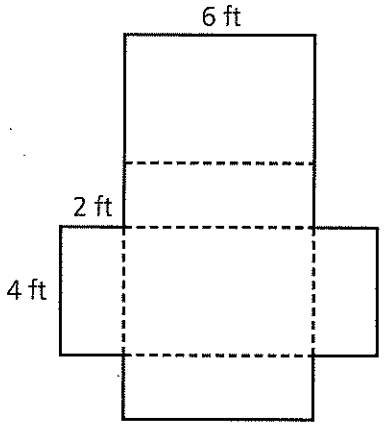
40 Connor found that 60% of 40 is the same as 25% of another number, *n*. What is the value of *n*?

Answer _____

41 Paper plates come in packages of 60. Napkins come in packages of 80. Natasha wants the same number of plates and napkins for a school dance. What is the fewest number of plates she will need to get?

Answer _____

42 The net for a storage trunk is represented below.



What is the surface area, in square feet, of the trunk?

Answer _____

43 Name a point that is located in quadrant III on a coordinate plane.

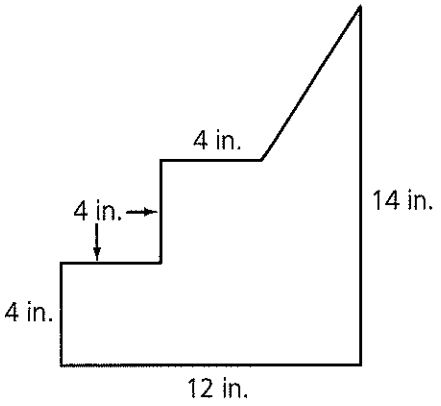
Answer _____

44 What is the value of the expression $8 + (7 - 3)^2 \div 4 \times 2$?

Answer _____

Read each problem. Write your answer.

45 Glen made this shape using rectangles and triangles.



What is the area, in square inches, of the shape?

Answer _____

46 The costs, in dollars, of the top-selling digital cameras at a store are listed below.

336 159 144 200 700 70 159 289 419 280

What is a reasonable number to represent the measure of center?

Answer _____

47 Jayden wants to solve the equation $n + 67 = 81$. He writes the equation $n + 67 - 67 = 81 - 67$ to find the value of n. Will Jayden get the correct answer using this equation? Explain how you know.

_____

_____

48 Are the expressions $5(2d + 6)$ and $10d + 6$ equivalent? Explain how you know.

_____

_____

Read each problem. Write your answer.

49 Of the numbers 8, 9, 10, 11, and 12, which are solutions to the inequality $8p < 84$?

Answer _____

50 The times, in minutes, it took 16 students to complete a logic puzzle are listed below.

15	11	9	15	12	10	18	16
14	22	13	20	17	12	18	19

Draw a box plot to show the data. Be sure to give the box plot a title and label each of the key points on the plot.

Read each problem. Write your answer to each part.

51 Grape juice comes in a 64-ounce bottle. Apple juice comes in an 80-ounce bottle. Both juices will be poured into cups of equal size so that no juice remains in either bottle.

Part A Can each type of juice be poured into 4-ounce cups? Explain how you know.

_____

_____

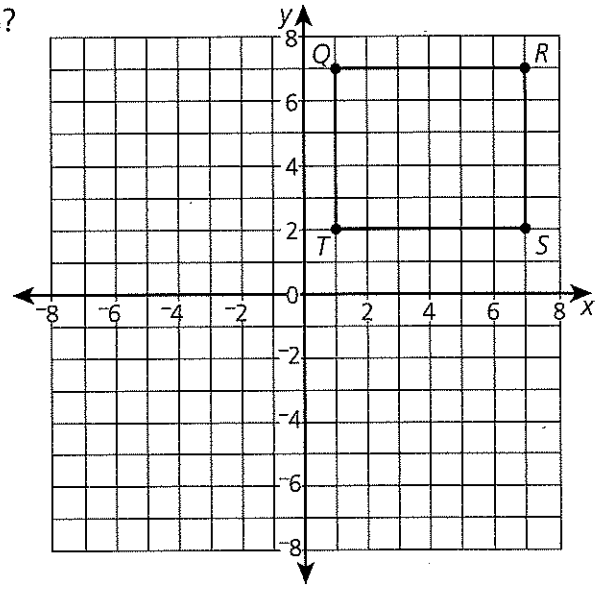
Part B How many ounces is the largest cup possible that can be used for the juices?

Answer _____

52 Rectangle *QRST* is shown on the coordinate plane below.

Part A What quadrant is the rectangle located in?

Answer _____



Part B What is the length, in units, of side *QR*? Explain how you know.

_____

_____

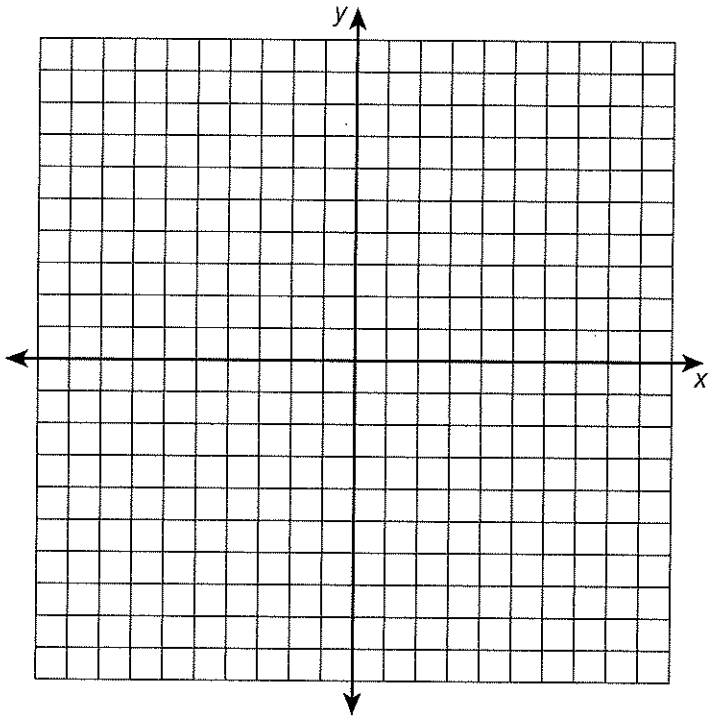
_____

Read the problem. Write your answer to each part.

53 Tabitha wrote the function $y = x + 3$.

Part A Make an x–y table of values to model this function for x-values 0, 2, 4, and 6.

Part B Graph this function on the coordinate plane below. Be sure to label each axis with appropriate values.



Answer Sheet

1. _____
2. _____
3. _____
4. _____
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38. Coordinate Plane in Packet
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49. _____
50. _____