Date: _____

Which measure best represents the distance from 0 1. to point N on the number line below?



A. $\frac{1}{6}$ unit B. $\frac{1}{5}$ unit C. $\frac{1}{4}$ unit D. $\frac{1}{3}$ unit

What is another way of expressing 8×12 ? 2.

A.
$$(8 \times 10) + (8 \times 2)$$
 B. $(8 \times 1) + (8 \times 2)$

B.
$$(8 \times 1) + (8 \times 2)$$

C.
$$(8 \times 10) + 2$$

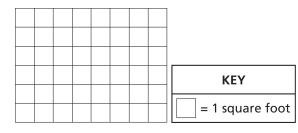
D.
$$8 + (10 \times 2)$$

Which fraction goes in the blank to make a true 3. number sentence?

$$\frac{4}{8} > \underline{?}$$

A. $\frac{4}{6}$ B. $\frac{2}{8}$ C. $\frac{7}{8}$ D. $\frac{4}{4}$

Sue is going to cover her kitchen floor with tiles that are each 1 square foot. The floor is in the shape of a rectangle that is 6 feet wide and 8 feet long. How many tiles are needed to cover the floor?



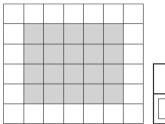
14 A.

B. 24

C.

D. 48

5. What is the area, in square units, of the shaded part of the figure?



KEY = 1 square unit

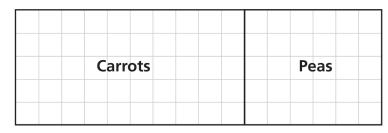
18 A.

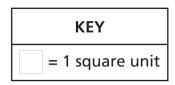
20 B.

C. 22 D. 42

- 6. The number of objects described in which situation can be represented by $24 \div 4$?
 - A. There are 24 boxes with 4 pencils in each box.
 - B. There are 24 people on a bus, and 4 people get off the bus.
 - C. There are 24 marbles that need to be sorted into 4 equal groups.
 - D. There are 24 books on a shelf, and 4 more books are put on the shelf.

7. The garden below was divided into two regions—one for carrots and one for peas.

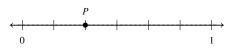




Which expression represents the area, in square units, of the whole garden?

- A. (5+10)+(5+6)
- B. $(5 \times 10) \times (5 \times 6)$
- C. $(5 \times 10) + (5 \times 6)$
- D. $(5 + 10) \times (5 + 6)$

8. Which number represents the location of point *P* on the number line below?



- A. $\frac{2}{7}$
- B. $\frac{2}{6}$
- C. $\frac{3}{7}$
- D. $\frac{2}{4}$
- 9. The Rogers family drove a total of 482 miles, starting on Friday and ending on Sunday. They drove 138 miles on Friday and 225 miles on Saturday. How many miles did they drive on Sunday?
 - A. 119
- B. 121
- C. 363
- D. 745

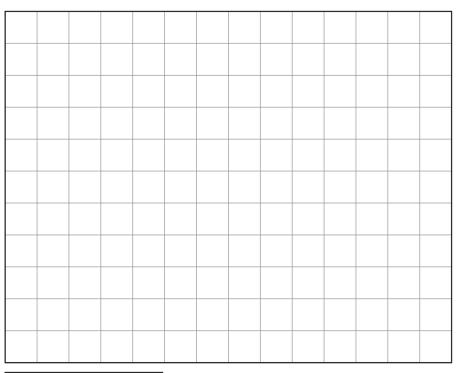
The diagram shows the size of 5 different rectangles.

<i>F</i>	\							
	`							
							2	
			В			Ì	_	
	[)				E		

KEY		
	= 1 square unit	

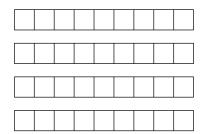
10. Which 2 figures have the same area?

On the grid below, join 3 of the rectangles together, without overlapping, to form one figure that has an area of 22 square units. Use the rectangles shown in the diagram.



KEY			
	= 1 square unit		

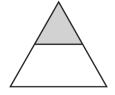
Which expression is represented by the model shown below?



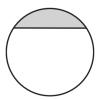
- A. 4×9
- B. $9 \div 4$
- C. 36×4
- D. $9 \div 36$

12. Which figure is $\frac{1}{2}$ shaded?

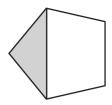
A.



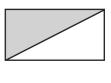
B.



C.



D.



13. Kai separated 36 index cards into 4 equal stacks. Which number sentence could be used to determine the number of cards in each stack?

A.
$$4 \times _{?} = 36$$

A.
$$4 \times \underline{?} = 36$$
 B. $4 \div \underline{?} = 36$

C.
$$? + 4 = 36$$

C.
$$? + 4 = 36$$
 D. $? \div 4 = 36$

- 14. Hilda and Mallory each have the same number of seashells.
 - Hilda sorted her seashells into 3 groups with 8 seashells in each group.
 - Mallory sorted her seashells into 6 equal groups.

How many seashells were in each of the groups Mallory made?

- A. 4
- B. 9
- C. 18
- D. 24

15. Which fraction is equivalent to $\frac{2}{8}$?

A.
$$\frac{1}{8}$$
 B. $\frac{1}{4}$ C. $\frac{2}{4}$ D. $\frac{4}{8}$

B.
$$\frac{1}{4}$$

C.
$$\frac{2}{4}$$

16. Mr. Jacobs had 56 books in his office. He put an equal number of books on each of 7 shelves. The equation below can be used to determine the number of books he put on each shelf.

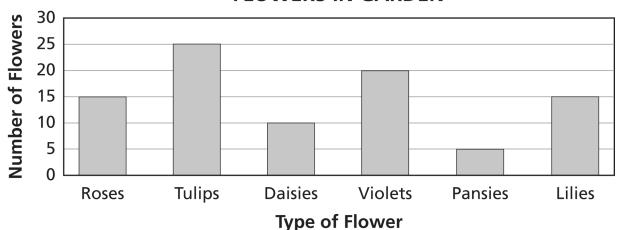
$$56 \div 7 = ?$$

How many books, in all, did Mr. Jacobs put on each shelf?

- A. 7
- B. 8
- C. 49
- D. 63

17. Ms. Jones has six types of flowers in her garden. The bar graph below shows the number of each type of flower.

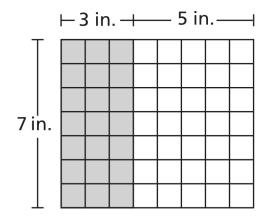
FLOWERS IN GARDEN



Based on the bar graph, which sentence is true?

- A. Ms. Jones has 25 more tulips than pansies.
- C. Ms. Jones has 5 more violets than lilies.
- B. Ms. Jones has 10 more lilies than daisies.
- D. Ms. Jones has 5 more roses than pansies.

Ryan used square tiles to make the design shown below. He used gray tiles and white tiles.



Which expression could be used to find the total area, in square inches, of Ryan's design?

A.
$$(7 \times 3) + (7 \times 5)$$

B.
$$(7+3) \times (7+5)$$

C.
$$3 \times 5 \times 7$$

D.
$$3 + 5 + 7$$

Which number sentence can be used to determine the value of $72 \div 9$?

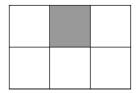
A.
$$9 \times _{?} = 72$$

A.
$$9 \times \underline{?} = 72$$
 B. $9 + \underline{?} = 72$

C.
$$9 \times 72 =$$
 ?

C.
$$9 \times 72 =$$
 D. $9 + 72 =$?

20. Mr. Lopez divided his garden into equal parts for planting, as shown in the diagram below. The shaded part of the diagram shows where he planted carrots.



Which fraction of the garden is planted with carrots?

- A. $\frac{1}{6}$ B. $\frac{1}{5}$ C. $\frac{1}{3}$ D. $\frac{1}{2}$

The points on the number line represent the distances of 4 different locations from Jordan's house. The library is one mile from Jordan's house.



What location is $\frac{2}{4}$ mile from Jordan's house?

- A. the park
- B. the school
- C. the library
- D. the soccer field

- 22. Wendy cut a board into 4 pieces of equal sizes to make a table. Which fraction of the whole board does each piece represent?
- A. $\frac{1}{4}$ B. $\frac{1}{1}$ C. $\frac{4}{4}$ D. $\frac{4}{1}$

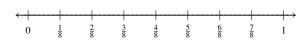
23. What number goes in the blank to make the number sentence true?

$$12 \times 2 = (\underline{?} \times 2) + (2 \times 2)$$

- 10 A.
- B. 12
- C. 20
- D. 24

- What is 345 rounded to the nearest 100?
 - A. 300
- B. 340
- C. 350
- D. 400

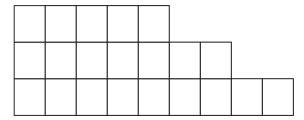
25. A number line is shown below.



Which pair of fractions is equivalent?

- A. $\frac{5}{8}$ and $\frac{2}{4}$ B. $\frac{2}{4}$ and $\frac{4}{8}$
- C. $\frac{3}{8}$ and $\frac{2}{4}$ D. $\frac{2}{4}$ and $\frac{2}{8}$

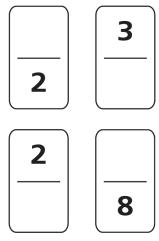
26. The first row in a pattern of tiles had 5 tiles. Each row after the first had 2 more tiles than the row before it, as shown below.



Which statement is true about the number of tiles in any row?

- A. It is divisible by 10.
- B. It is an even number.
- C. It is a multiple of 3.
- D. It is an odd number.

27. Four fraction cards are shown below. Complete the fraction on each card so that all four fractions are equivalent.



28. Which expression could be used to find the total number of circles shown below?



- A. 2 + 20
- B. 2×20
- C. 2 + 10
- D. 2×10

29. Alexis read 63 pages of a book in seven days. She read an equal number of pages each day. The equation below can be used to find the total number of pages she read each day.

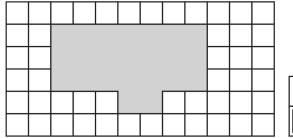
$$63 \div 7 = ?$$

What is the total number of pages Alexis read each day?

- A. 8
- B. 9
- C. 56
- D. 70

- 30. Selena had 204 stamps in her collection. She bought 47 more stamps. If she gave 38 stamps to her brother, how many stamps does Selena have now?
 - A. 119
- B. 195
- C. 213
- D. 289

31. What is the area, in square units, of the shaded shape on the grid below?



KEY = 1 square unit

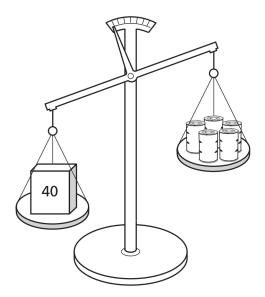
A. 22

B. 23

C. 28

D. 72

32. The picture below shows that one box is heavier than 5 identical cans.



The box has a mass of 40 kilograms. What could be the mass, in kilograms, of 1 can?

- A. 40
- B. 10
- C. 8
- D. 6

33. Mr. Stone asked each of his students to name on picture graph shown below to display the data.

STUDENTS' FAVORITE HOBBIES

Hobby	Number of Students
Drawing	00
Reading	000
Sports	0000

Key

Which table represents the same data as the picture graph?

A.	STUDENTS' FAVORITE HOBBIES					
	Hobby	Number of Students				
	Drawing	4				
	Reading	6				
	Sports	8				

C.	STUDENTS' FAVORITE HOBBIES					
	Hobby	Number of Students				
	Drawing	2				
	Reading	3				
	Sports	4				

B.	STUDENTS' FAVORITE HOBBIES					
	Hobby	Number of Students				
	Drawing	8				
	Reading	6				
	Sports	4				

D.	STUDENTS' FAVORITE HOBBIES					
	Hobby	Number of Students				
	Drawing	4				
	Reading	5				
	Sports	6				

- 34. Which expression has the same value as $(8 \times 5) + (8 \times 3)$?
 - A. 8×8
- B. 8×15
- C. 16 + 8
- D. 13 + 11

- 35. Alex sorted 20 toy cars into 4 groups with the same number of cars in each group. Which expression represents the number of toy cars in each group?
 - A. 20×4
- B. 20 + 4
- C. $20 \div 4$
- D. 20 4

36. A certain dance class has 42 dancers. The teacher wants to place the class into six equal groups. Which number sentence could be used to find the number of dancers that will be in each group?

A.
$$6 \times _{?} = 42$$

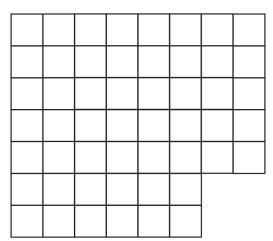
A.
$$6 \times _{?} = 42$$
 B. $6 \div _{?} = 42$

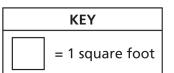
C.
$$42 + 6 =$$
 D. $42 - 6 =$?

D.
$$42 - 6 = ?$$

37. Ms. Chen tiled her kitchen and bathroom floors. The total area of both floors she tiled was 92 square feet. The diagram below shows the tiles on the kitchen floor.

KITCHEN FLOOR





What is the area, in square feet, of the bathroom floor?

- 38. What is 836 rounded to the nearest 10?
 - A. 800
- B. 830
- C. 840
- D. 870
- 39. Which two values are located at the same point on a number line?

 - A. $\frac{4}{1}$ and 4 B. $\frac{1}{3}$ and 3

 - C. $\frac{8}{8}$ and 8 D. $\frac{6}{2}$ and 4

Umi created the number pattern below by adding the same amount each time to get the next number.

What will be the eighth number in the pattern?

- A. 160
- B. 240
- C. 320
- D. 640

In which equation could the number six replace the question mark to make the equation true?

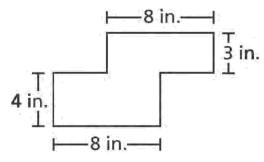
A.
$$9 \times ? = 56$$

A.
$$9 \times _{\underline{?}} = 56$$
 B. $48 \div _{\underline{?}} = 8$

C.
$$30 \times 5 =$$
 ?

C.
$$30 \times 5 =$$
 D. $24 \div 3 =$?

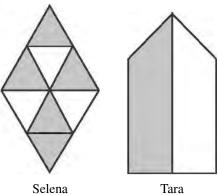
A diagram of Keisha's poster board is shown below.

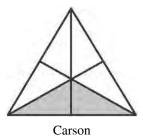


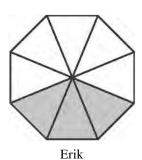
What was the total area, in square inches, of Keisha's poster board?

- 46 square inches
- 56 square inches
- 112 square inches
- D. 192 square inches

43. Four students each drew a figure. Each student shaded part of the figure to represent a fraction.







Which sentence about the figures is true?

- Selena shaded $\frac{5}{8}$ of her figure.
- Tara shaded $\frac{1}{1}$ of her figure.
- Carson shaded $\frac{2}{4}$ of his figure.
- Erik shaded $\frac{5}{3}$ of his figure.

- 44. Which two fractions both represent the same location on a number line?
- A. $\frac{2}{3}$, $\frac{1}{5}$ B. $\frac{3}{4}$, $\frac{6}{8}$ C. $\frac{2}{4}$, $\frac{3}{5}$ D. $\frac{5}{6}$, $\frac{5}{8}$

45. What number makes the equation below true?

- A. 8
- B. 9
- C. 72
- D. 90

- 46. Which expression is equal to 720?
 - A. 7×20 B. 8×80 C. 9×80 D. 9×90

- Which situation could be represented by the expression 6×2 ?
 - Rocco hiked six miles each day for two days.
 - Rocco had six baseballs and gave away two of them.
 - C. Rocco had a total of six tennis balls in two
 - D. Rocco biked six miles and then continued for two more miles.

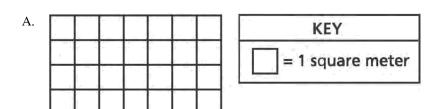
48. A number belongs in the box below. When the number is rounded to the nearest hundred, the result will be 900.

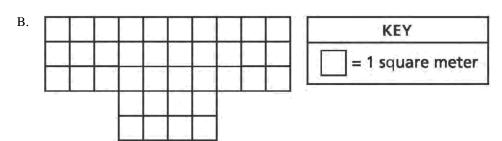


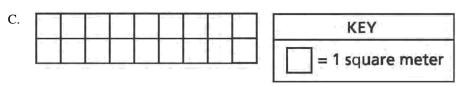
Which number belongs in the box?

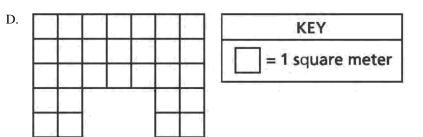
- A. 849
- B. 852
- 960 C.
- D. 999

49. Mr. Gomez built a deck. The deck had an area of 29 square meters. Which figure could represent the deck?









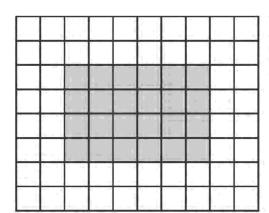
50. Leroy made a game board, shown below. Each small square on the game board has the same area.



What fraction of the game board is shaded?

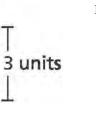
- A. $\frac{1}{9}$ B. $\frac{1}{8}$ C. $\frac{1}{6}$ D. $\frac{1}{3}$

51. Tomas made a poster for his science project. The shaded part of the figure below shows the area of his poster.

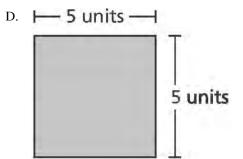


KEY = 1 square unit

Which figure has the same area as the poster?



B. — 6 units — T 6 units



52. A baker made 232 muffins. He sent 190 of the muffins to a local hotel. He will put the rest of the muffins in boxes. Each box can hold 6 muffins. Which equation can be used to find b, the number of boxes the baker will need?

A.
$$(232 - 190) \div 6 = b$$
 B. $(232 + 190) \times 6 = b$

C.
$$(232 - 190) \times 6 = b$$
 D. $(232 + 190) \div 6 = b$

53. What number makes the equation below true?

$$35 \div ? = 7$$

- B. 6 A. 5
 - C. 7
- D. 8

- 54. Theo divided a garden equally into 6 parts. He planted seeds in 5 of the parts. In what fraction of the garden did Theo plant seeds?
 - A. $\frac{1}{6}$ B. $\frac{1}{5}$ C. $\frac{5}{6}$ D. $\frac{6}{5}$

- 55. Colton and his dad bought a gallon of paint that cost \$13. They also bought 2 brushes that cost \$9 each. What was the total cost, not including tax, of the brushes and the paint they bought?
 - A. \$22
- B. \$24
- C. \$31
- D. \$35

56. Anya placed 16 cups in rows on a table. There are 8 cups in each row. Which equation could be used to represent this situation?

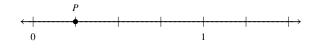
A.
$$16 \times 8 = \square$$

B.
$$8 + 16 = \Box$$

C.
$$\Box \div 8 = 16$$

D.
$$\times 8 = 16$$

Which fraction does point P represent on the number line below?



- B. $\frac{2}{6}$
 - C. $\frac{1}{4}$
- D. $\frac{2}{4}$

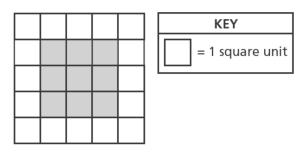
58. Which fraction is equal to $\frac{2}{8}$?

B.
$$\frac{1}{2}$$

A.
$$\frac{8}{2}$$
 B. $\frac{1}{2}$ C. $\frac{2}{4}$ D. $\frac{1}{4}$

D.
$$\frac{1}{4}$$

59. Brandon used square tiles to find the area of the shaded part of the picture below.



What is the area of the shaded part of the picture?

- A. 3 square units
- B. 6 square units
- C. 8 square units
- D. 9 square units

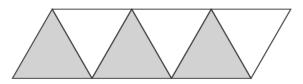
60. Which pair of equations is true when the number 8 is placed in the blanks?

A.
$$4 \times \underline{\hspace{1cm}} = 32$$
 B. $5 \times \underline{\hspace{1cm}} = 40$ $32 \div \underline{\hspace{1cm}} = 4$ $\div 40 = 5$

C.
$$6 \times 48 =$$
____ = 6

C.
$$6 \times 48 =$$
 D. $7 \times$ = 63
 $48 \div$ = 7

61. The figure below is divided into equal-sized parts.



Which fraction is represented by the shaded parts of the figure?

- A. $\frac{1}{3}$ B. $\frac{3}{3}$ C. $\frac{3}{6}$ D. $\frac{6}{3}$

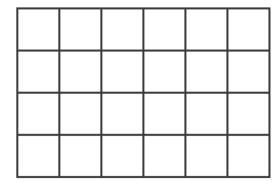
62. There are 12 students in Ms. Miller's class. She needs 24 juice boxes for a class party. The juice boxes come in packages of 6 juice boxes each. Which expression represents the number of packages of juice boxes Ms. Miller needs to buy for the class party?

B.
$$36 \div 6$$

C.
$$12 \times 6$$

D.
$$24 \div 6$$

63. The figure below is tiled with squares.



KEY		
	= 1 square unit	

Which expression could be used to find the area of this figure?

- A. 4×6
- B. 4 + 6
- C. $4 \times 4 \times 6 \times 6$
- D. 4+4+6+6

64. Which expression is equivalent to 5×9 ?

A.
$$(5 \times 4) \times (5 \times 5)$$

B.
$$(5 \times 5) + (5 \times 4)$$

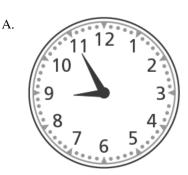
C.
$$(5 \times 5) + (5 \times 9)$$

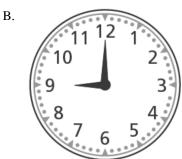
D.
$$(5 \times 9) \times (5 \times 9)$$

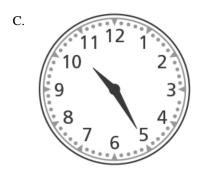
- 66. Last weekend Sanjay watched 3 television shows that were each 30 minutes long. He also watched 1 movie on television that was 90 minutes long. What is the total number of minutes Sanjay watched television last weekend?
 - A. 100
- B. 120
- C. 150
- D. 180

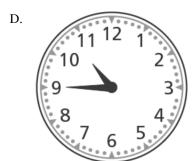
- 65. A coach rounded the number of runners at a track meet to the nearest 10. The rounded number of runners is 400. Which number could be the actual number of runners at the track meet?
 - A. 382
- B. 397
- C. 406
- D. 447
- 67. A total of 30 players will play basketball at a park. There will be exactly 5 players on each team. Which statement correctly explains how to find the number of teams needed?
 - A. Add 5 to 30 to find 35 teams.
 - B. Divide 30 by 5 to find 6 teams.
 - C. Multiply 30 and 5 to find 150 teams.
 - D. Subtract 5 from 30 to find 25 teams.

- 68. Carmen saved 592 pennies. Her sister saved 128 pennies. Together, they put 250 pennies in wrappers and took them to the bank. What is the total number of pennies, rounded to the nearest hundred, Carmen and her sister have left?
 - A. 300 B. 500 C. 700 D. 1,000
- 69. Frankie's music class begins at 9:40 a.m. The class is 45 minutes long. Which clock shows the time that Frankie's class ends?









70. What number multiplied by 4 equals 36?

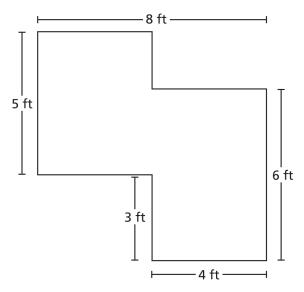
A. 6

B. 7

C. 8

D. 9

71. A gardener is drawing plans for a new yard. She creates the picture below to represent the size and shape of a new lawn.



How can the gardener find the total area of the new lawn? Describe the process she can use.

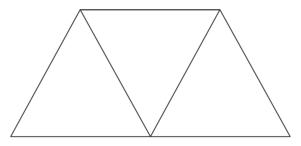
What is the total area of the new lawn?

72. A band has 36 members. They are arranged into 6 equal rows. How many band members are in each row?

Can the same 36 band members be placed into exactly 7 equal rows? Why or why not?

Explain your answer.

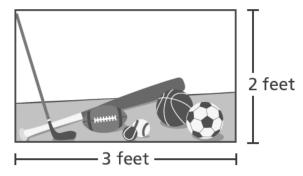
73. Ved drew the shape below by combining exactly three triangles of the same size and shape.



What fraction of the area of the whole shape is each triangle?

Explain how you know your answer is correct.

Kelly has a rectangular poster in her room. The poster is shown below.



What is the area, in square feet, of Kelly's poster?

- A. 5
- B. 6
- C. 10
- D. 12

- 75. Which fraction comparison is *not* correct?
 - A. $\frac{1}{3} < \frac{2}{3}$ B. $\frac{3}{4} < \frac{1}{4}$ C. $\frac{2}{3} > \frac{2}{8}$ D. $\frac{5}{6} > \frac{5}{8}$

- 76. Ms. Perez drove a total of 40 miles in 5 days. She drove the same number of miles each day. How many miles did Ms. Perez drive each day?
 - A. 5
- B. 7
- C. 8
- D. 9

- 77. Which expression is another way to show 8×6 ?
 - A. (2+4)+6
- B. $(2+4) \times 6$
- C. $(2 \times 4) + 6$
- D. $(2 \times 4) \times 6$

- 78. The distance from Chicago to New York City is 794 miles. What is 794 rounded to the nearest hundred?
 - A. 700
- B. 794
- C. 800
- D. 894

79. What number makes the equation true?

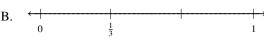
- A. 11
- B. 21
- C. 28
- D. 32

- 80. Joe and Mike both ran the same race. Joe finished the race 4 minutes before Mike. If Mike finished the race at 4:02 pm, what time did Joe finish the race?
 - A. 3:58 pm
- B. 4:06 pm
- C. 8:02 pm
- D. 12:02 pm

- 81. A bulletin board can be covered completely by 30 square pieces of paper without any gaps or overlaps. If each piece of paper has side lengths of 1 foot, what is the total area of the bulletin board?
 - A. 1 foot
- B. 30 feet
- C. 1 square foot
- D. 30 square feet

82. Which number line shows the fraction $\frac{1}{3}$ plotted correctly?









- 83. Last week, Paul ate 2 cookies each day for 5 days. This week, he ate 2 cookies each day for 4 days. Which expression can be used to represent the total number of cookies Paul ate in these two weeks?
 - A. $2 \times (5 \times 4)$
- B. $2 \times (5 + 4)$
- C. $(2 \times 5) \times (2 \times 4)$
- D. $(2+5) \times (2+4)$

- 84. Kay and Juanita each have a garden of the same size and shape.
 - Kay grows flowers in $\frac{1}{6}$ of her garden.
 - Juanita grows flowers in $\frac{1}{3}$ of her garden.

Which statement shows a correct comparison of the sections of flowers grown in Kay's garden and Juanita's garden?

A. $\frac{1}{6} > \frac{1}{3}$ B. $\frac{1}{6} < \frac{1}{3}$ C. $\frac{1}{3} = \frac{1}{6}$ D. $\frac{1}{3} + \frac{1}{6}$

- 85. A teacher puts 5 packages of craft paper into a cabinet. Each package has 80 sheets of paper. What is the total number of sheets of craft paper that the teacher puts into the cabinet?
 - A. 40
- B. 85
- C. 400
- D. 450

- 86. Jaime has a small container that holds exactly $\frac{1}{4}$ cup of dog food. How many times should Jaime fill the container and pour it into the dog's bowl to make sure the dog gets exactly $\frac{1}{2}$ cup of food?
 - A. $\frac{1}{4}$
- B. $\frac{1}{2}$
- C. 2
- D. 4

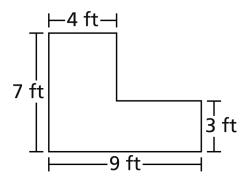
- 87. Which situation can be solved using the expression $21 \div 3$?
 - A. finding the number of shirts when there are 3 groups of 21 shirts
 - B. finding the number of dresses when 21 more dresses are placed on a rack with 3 dresses
 - C. finding the number of jackets left over when 3 out of 21 jackets are sold
 - D. finding the number of skirts on each rack when a total of 21 skirts are placed equally on 3 racks

88. A number pattern is shown below.

Which rule could have been used to make the pattern?

- A. Start with 0. Add 4 each time to get the next number.
- B. Start with 0. Add 5 each time to get the next number.
- C. Start with 5. Add 4 each time to get the next number.
- D. Start with 5. Add 5 each time to get the next number.

89. The shape of Cindy's flower garden is shown below.

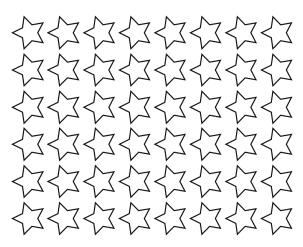


What is the area, in square feet, of Cindy's flower garden?

- A. 23
- B. 32
- C. 43
- D. 47

- 90. Which fraction is equivalent to 4?
 - A. $\frac{1}{4}$ B. $\frac{8}{4}$
- C. $\frac{4}{4}$
- D. $\frac{4}{1}$

91. Ethan made the array below to show the product of 6×7 .

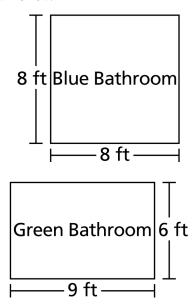


Does Ethan's model show the product of 6×7 ? Explain why or why not.

- 92. Two teachers each buy pizzas for a party. All of the pizzas are the same size.
 - Teacher A's pizzas were cut into 6 equal
 - Teacher B's pizzas were cut into 8 equal slices.

Which teacher's pizzas were cut into larger slices? Use what you know about fractions to explain your answer.

93. The sizes of two bathroom floors in Beth's house are shown below.



Beth says that the area of the floor of the green bathroom is larger than the area of the floor of the blue bathroom. Is Beth's statement true? Why or why not?

Explain your answer.