



MISSISSIPPI
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EDUCATION

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Mathematics

Grade 4 Item Sampler 2015–16



QA116018

1. Jeb rode 4 miles on his bike. Max rode 8 times as many miles as Jeb. Which equation shows how to find the number of miles Max rode?

Ⓐ $4 + 8 = 12$

Ⓑ $8 - 4 = 4$

Ⓒ $8 \div 4 = 2$

Ⓓ $4 \times 8 = 32$

2. A farmer picks 156 apples. She plans to sell them in bags of 12 apples for \$3 per bag. Which equation shows how to find the number of bags she can fill?

Ⓐ $156 \div 12 = \square$

Ⓑ $12 \times 3 = \square$

Ⓒ $156 - 12 = \square$

Ⓓ $156 \div 3 = \square$

3. Which two numbers are multiples of 7? Select **two** answers.

A 17

B 21

C 27

D 36

E 42

F 71

4. A parking lot charges a fee for each car. A total of 24 cars are parked in the lot. The total amount of money paid was \$72.00. Each car paid the same amount. Create an equation you can use to find the amount of the parking fee (f) for each car. Choose a number or symbol for each box to create the equation.

<input type="radio"/> 6	<input type="radio"/> +	<input type="radio"/> 6
<input type="radio"/> 24	<input type="radio"/> -	<input type="radio"/> 24
<input type="radio"/> 72	<input type="radio"/> ×	<input type="radio"/> 72
	<input type="radio"/> ÷	

 = f

- 5.** Andy draws a rectangle with an area of 56 square feet. One side of the rectangle has a length of 7 feet. What is the perimeter of the rectangle?
- Ⓐ 15 feet
 - Ⓑ 30 feet
 - Ⓒ 15 square feet
 - Ⓓ 30 square feet

6. Use the information provided to answer Part A and Part B.

The table shows the number of children in each grade who signed up for after-school soccer. Teams will be made up of children from all three grades.

Grade	Number of Players
3	84
4	115
5	131

Part A

The head coach wants each team to have 4 third graders. Which equation shows how to find the number of teams (n) there will be?

- Ⓐ $84 \times 4 = n$
- Ⓑ $84 \div 4 = n$
- Ⓒ $330 \times 4 = n$
- Ⓓ $330 \div 4 = n$

Part B

Each soccer team needs two coaches. How many coaches will be needed in all?

Ⓐ 21

Ⓑ 32

Ⓒ 42

Ⓓ 63

7. The town of Wilton has a population of 785 people. Plainville has 10 times the number of people in Wilton. How many people live in Plainville?

Ⓐ 795

Ⓑ 7,805

Ⓒ 7,850

Ⓓ 78,500

8. A truck driver traveled 4,273 miles in June. What is that number rounded to the nearest hundred?

Ⓐ 4,300

Ⓑ 4,270

Ⓒ 4,200

Ⓓ 4,000

9. Which two comparisons are correct? Select **two** answers.

Ⓐ $1,801 > 1,810$

Ⓑ $991 > 919$

Ⓒ $5,206 > 5,260$

Ⓓ $3,075 < 3,750$

Ⓔ $610 < 601$

Ⓕ $4,230 < 4,203$

10. Choose the correct symbol to make each comparison true.

$710 \div 7$	<input type="radio"/> $>$	100
	<input type="radio"/> $<$	
	<input type="radio"/> $=$	

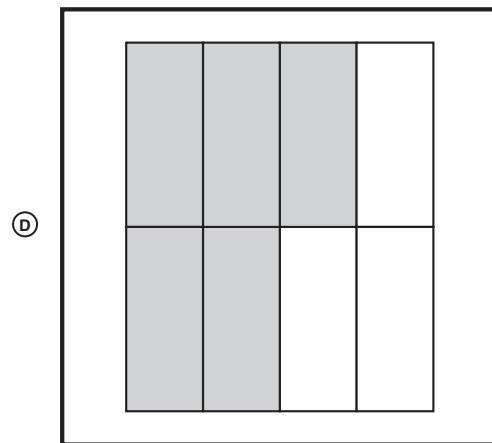
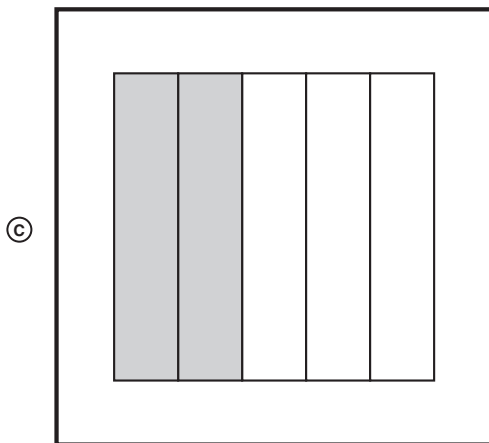
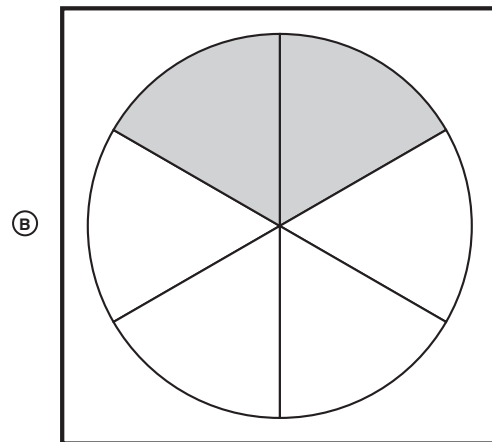
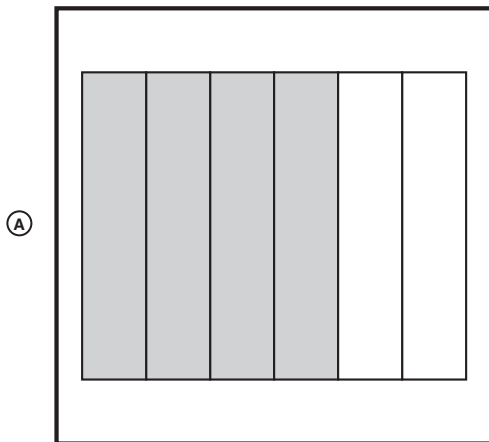
$680 \div 60$	<input type="radio"/> $>$	100
	<input type="radio"/> $<$	
	<input type="radio"/> $=$	

$1,900 \div 19$	<input type="radio"/> $>$	100
	<input type="radio"/> $<$	
	<input type="radio"/> $=$	

11. For each number sentence (A), choose the expression (B) that completes the sentence correctly.

Column A	Column B				
$405 \times 3 = \square$	<input type="radio"/> 400×15	<input type="radio"/> $400 \times 5 \times 3$	<input type="radio"/> $4 \times 15 \times 10$	<input type="radio"/> $(400 \times 3) + (5 \times 3)$	<input type="radio"/> $4 \times 15 \times 100$
$40 \times 15 = \square$	<input type="radio"/> 400×15	<input type="radio"/> $400 \times 5 \times 3$	<input type="radio"/> $4 \times 15 \times 10$	<input type="radio"/> $(400 \times 3) + (5 \times 3)$	<input type="radio"/> $4 \times 15 \times 100$

12. Which fraction model shows $\frac{2}{3}$ shaded?



13. Madison buys $3\frac{5}{8}$ yards of cloth. She uses $1\frac{2}{8}$ yards to make a skirt. How much cloth does she have left?

Ⓐ $1\frac{3}{8}$ yards

Ⓑ $2\frac{3}{8}$ yards

Ⓒ $2\frac{7}{8}$ yards

Ⓓ $4\frac{7}{8}$ yards

14. Which two comparisons are correct? Select **two** correct answers.

Ⓐ $\frac{1}{2} = \frac{5}{10}$

Ⓑ $\frac{1}{3} = \frac{3}{6}$

Ⓒ $\frac{3}{5} > \frac{6}{10}$

Ⓓ $\frac{3}{4} > \frac{2}{3}$

Ⓔ $\frac{2}{5} < \frac{1}{6}$

Ⓕ $\frac{5}{6} < \frac{1}{2}$

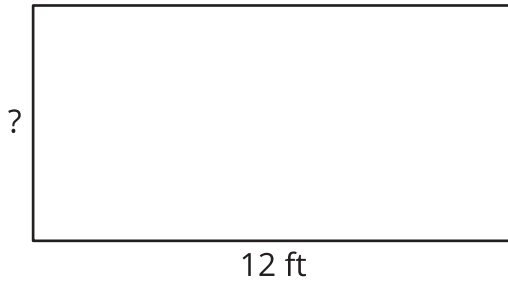
- 15.** For each expression on the left, find the column with the equivalent expression on the right. Select the cell for each answer you choose. (Some answers may be used more than once.)

	$\frac{30}{100}$	$\frac{38}{100}$	3.8
0.38	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
$\frac{3}{10}$	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
0.3	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
$\frac{3}{10} + \frac{8}{100}$	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- 16.** Fran bought $\frac{1}{2}$ pound of cheddar cheese and $\frac{1}{4}$ pound of Swiss cheese. How many ounces of cheese did she buy?

- Ⓐ 4 oz
- Ⓑ 8 oz
- Ⓒ 12 oz
- Ⓓ 16 oz

17. A rectangular deck has a total area of 96 square feet.



What is the width of the deck?

- Ⓐ 8 ft
- Ⓑ 12 ft
- Ⓒ 24 ft
- Ⓓ 48 ft

18. Nina rides a bus to school. The trip takes $\frac{1}{4}$ of an hour. Select an amount of time equal to $\frac{1}{4}$ of an hour.

Ⓐ 15 seconds

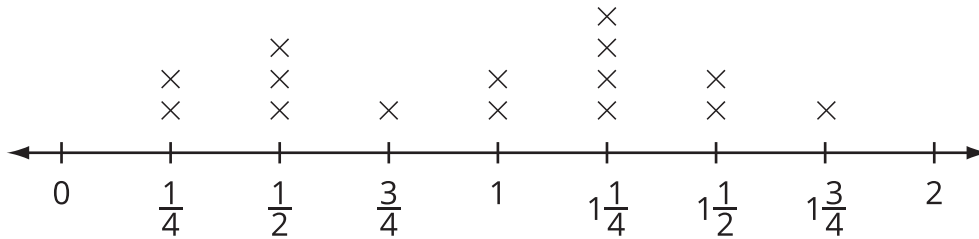
Ⓑ 30 seconds

Ⓒ 15 minutes

Ⓓ 30 minutes

19. The line plot shows the amount of time Ms. Clark's fourth graders spend playing sports each day.

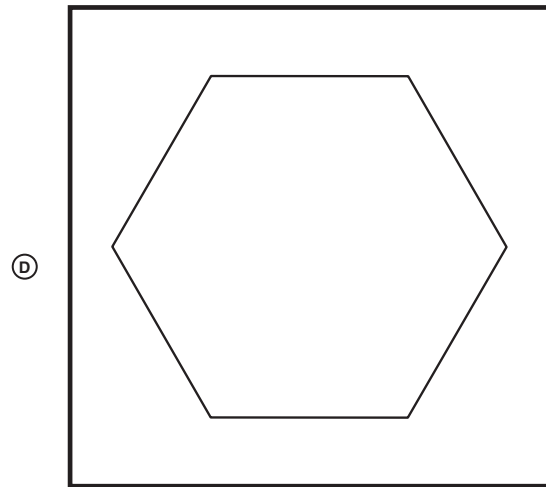
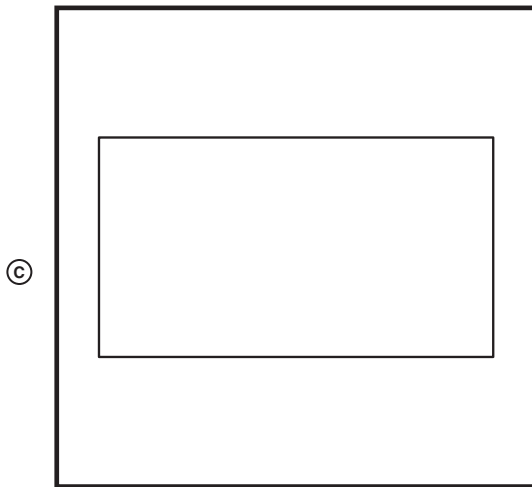
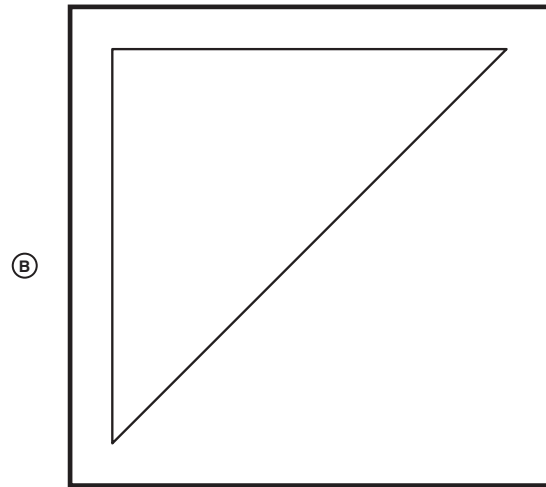
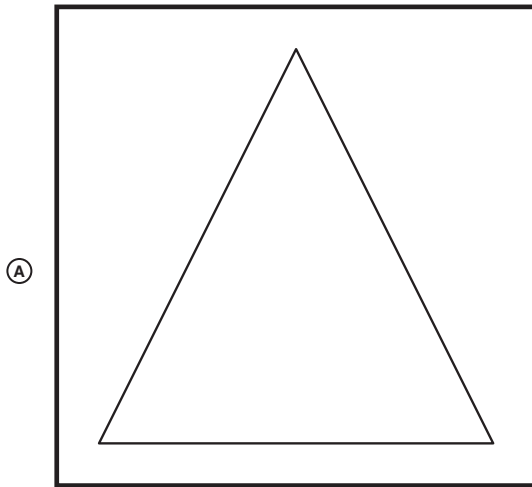
Number of Hours Playing Sports



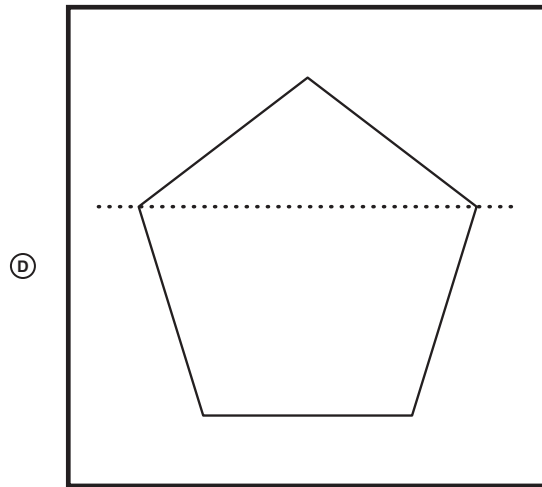
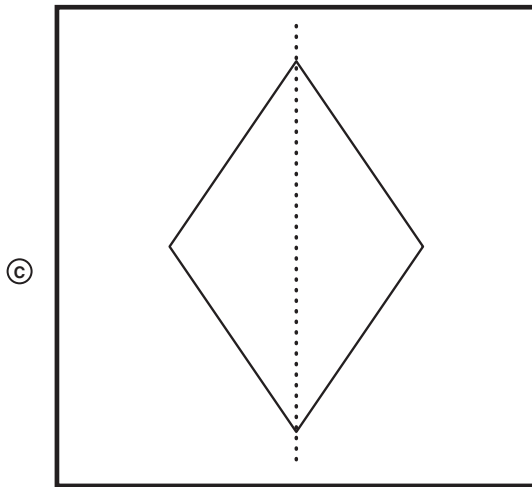
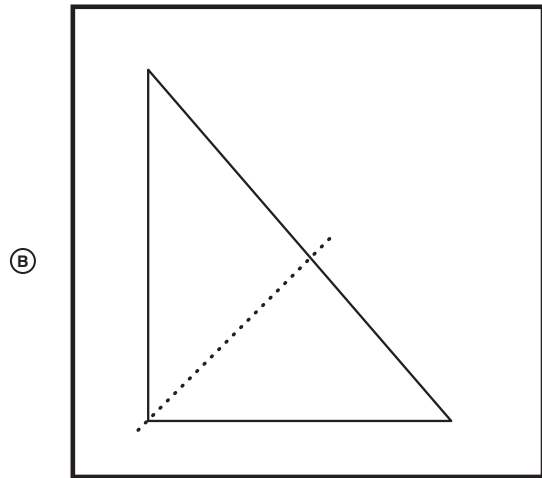
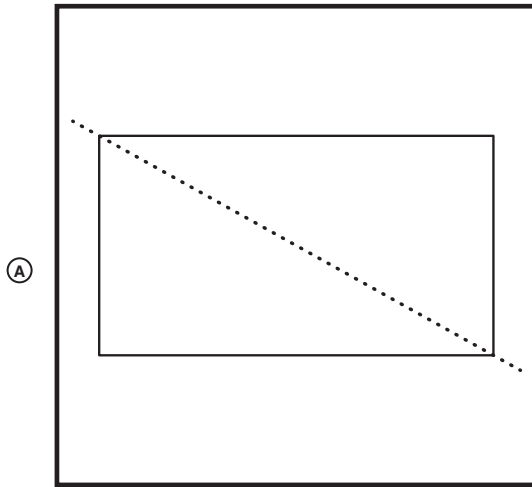
Using data from the line plot, for each description (A), choose the correct number (B).

Column A	Column B					
The number of fourth graders who play sports $\frac{1}{2}$ hour each day	<input type="radio"/> $1\frac{1}{4}$	<input type="radio"/> $1\frac{1}{2}$	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 7
The number of fourth graders who play sports more than one hour per day	<input type="radio"/> $1\frac{1}{4}$	<input type="radio"/> $1\frac{1}{2}$	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 7
The difference between the longest and shortest amounts of time playing sports	<input type="radio"/> $1\frac{1}{4}$	<input type="radio"/> $1\frac{1}{2}$	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 7

20. Which figure has one or more obtuse angles?



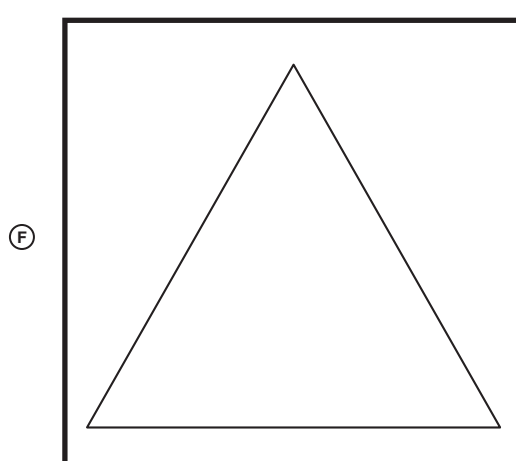
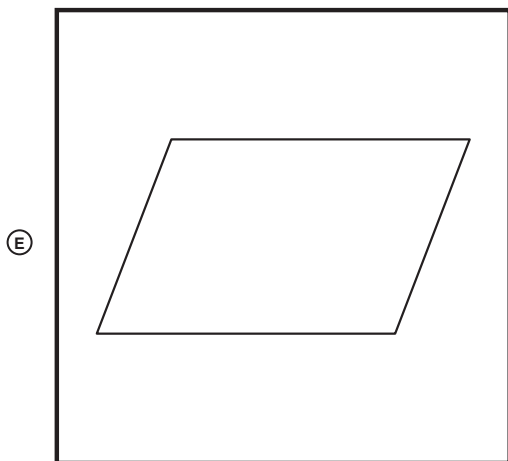
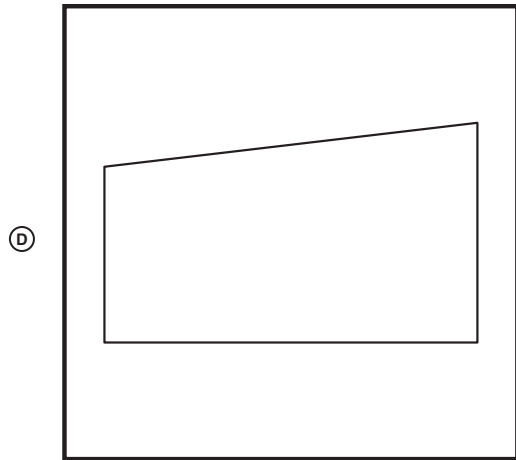
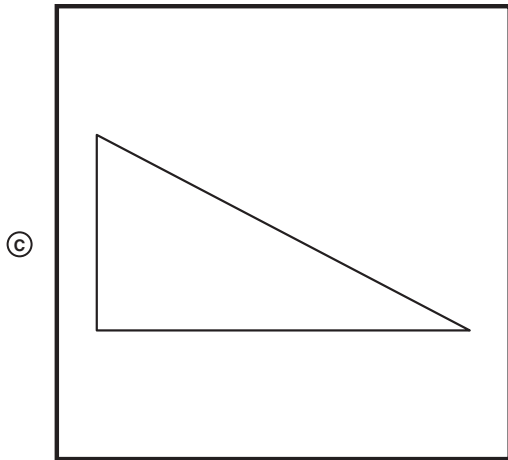
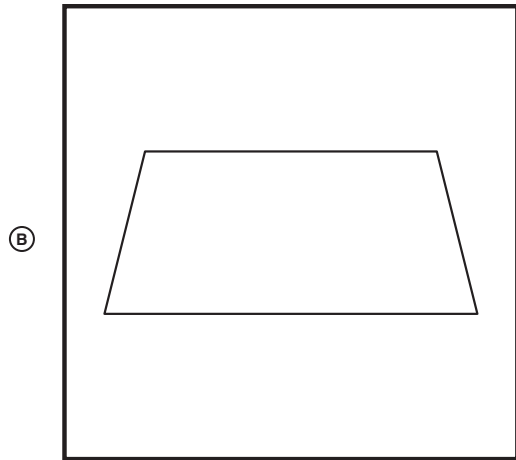
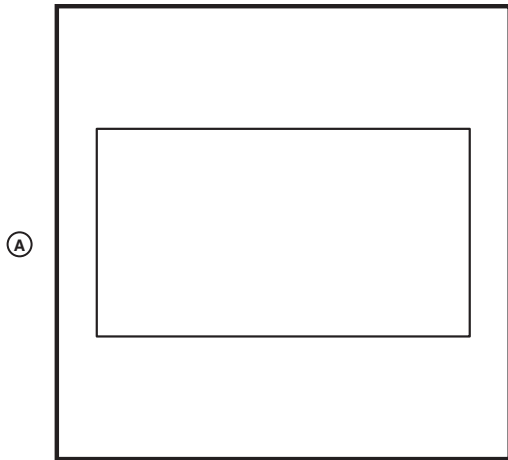
21. Which figure shows a line of symmetry?



- 22.** Identify the characteristics of each geometric shape by selecting the correct cell or cells. Shapes may have more than one of the characteristics listed.

	Parallel sides	Only one 90° angle	More than one 90° angle	All sides equal	No parallel sides or right angles
Right Triangle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Rectangle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Square	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Circle	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

23. Which figures appear to have two parallel sides *and* no right angles? Select **two** correct answers.



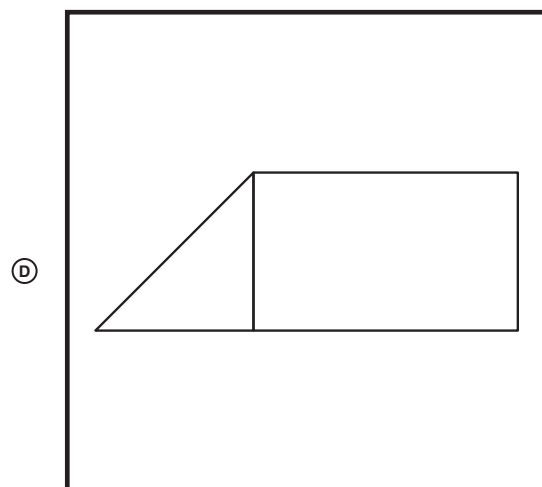
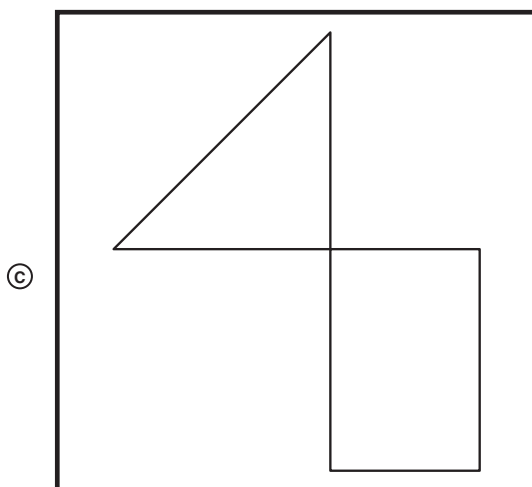
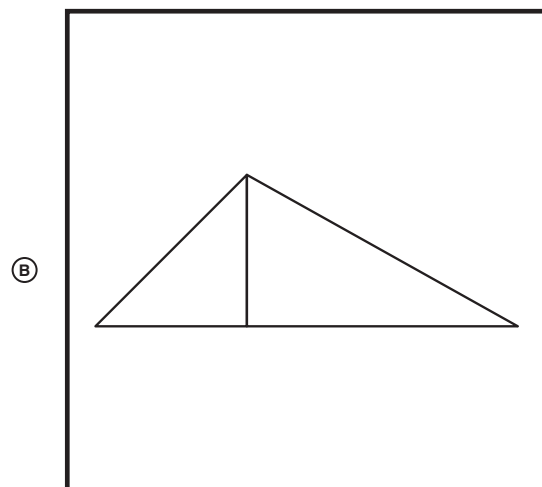
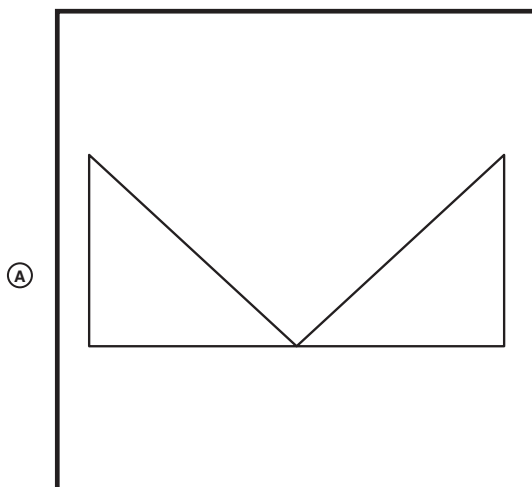
24. Use the information provided to answer Part A and Part B.

Luke is working on an art project. He must make a design that has the following characteristics:

- Two right triangles
- Symmetry
- At least five line segments
- Two or more acute angles

Part A

Which figure has all of the characteristics listed?



Part B

Which of these statements is also true of the correct figure from Part A?

- Ⓐ It has two rays.
- Ⓑ It has obtuse angles.
- Ⓒ It has no parallel sides.
- Ⓓ It has two sets of perpendicular line segments.

25. A plane traveled approximately 13,000 miles. Which three distances could the plane have actually traveled?

Ⓐ 11,627

Ⓑ 12,531

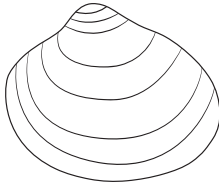
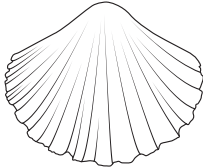

Ⓒ 12,737

Ⓓ 13,478

Ⓔ 13,823

DIRECTIONS: Use the information provided and the table below to answer questions 1–6.

Delia likes to collect seashells on the beach. She takes the best shells home, cleans them, and puts them in special cases. The table shows the number of shells she has collected.

Delia's Seashells		
Type	What It Looks Like	Number
Clam		38
Scallop		105
Whelk		63

1. Delia wants to display the clam shells and Whelk shells in rows of 7 shells per row. How many rows will she need to display both types of shells?
- Ⓐ 14
 - Ⓑ 15
 - Ⓒ 24
 - Ⓓ 25

- 2.** Delia buys 30 special boxes to put all of her shells in. If each box holds 8 shells, how many boxes will be filled? Write your answer.

How many shells will be left over? Write your answer.

- 3.** Each day, Delia spends $\frac{2}{3}$ of an hour looking for shells. Over 7 days, about how many hours does she look for shells?

- Ⓐ between 2 and 3 hours
- Ⓑ between 4 and 5 hours
- Ⓒ between 7 and 8 hours
- Ⓓ between 12 and 14 hours

4. Over 3 days, Delia sells 12 of her best shells for \$5 per shell. Write an equation to find how much money she earned.

<input type="radio"/> 3	<input type="radio"/> +	<input type="radio"/> 3	=	<input type="radio"/> 7
<input type="radio"/> 5	<input type="radio"/> -	<input type="radio"/> 5		<input type="radio"/> 15
<input type="radio"/> 12	<input type="radio"/> x	<input type="radio"/> 12		<input type="radio"/> 17
	<input type="radio"/> ÷			<input type="radio"/> 60

5. Use this information to answer Part A and Part B.

Delia wants to display her scallop shells in rows of 6.

Part A

Which equation shows how many rows she will need to display all of the scallop shells?

Ⓐ $105 \times 6 = \square$

Ⓑ $105 \div 6 = \square$

Ⓒ $206 \times 6 = \square$

Ⓓ $206 \div 6 = \square$

Part B

If she arranges all of the scallop shells she can in rows of 6, how many will be left over?

Ⓐ 3

Ⓑ 5

Ⓒ 7

Ⓓ 9

6. Each day, Delia walks about $\frac{3}{4}$ mile on the beach. How many miles will she walk in 5 days?

Write an equation to show the number of miles (n) Delia walks in 5 days.

Solve the equation and write the solution in the box.

miles

