

Geometry

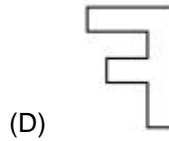
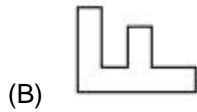
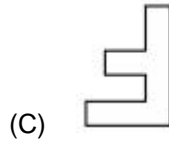
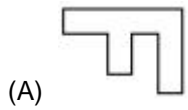
Set 1

Daily Practice And Answer Keys

Website: <http://alex.state.al.us/ccrs/node/314>



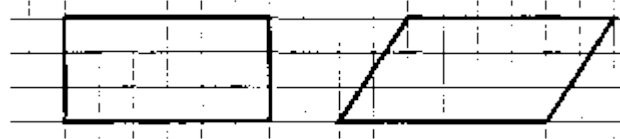
1. The figure above is shaded on the top side and white on the under side. If the figure were flipped over, its white side could look like which of the following figures?



2. Which statement is true about all four shapes shown?



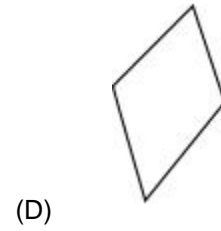
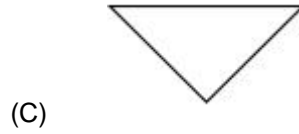
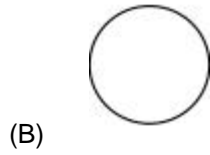
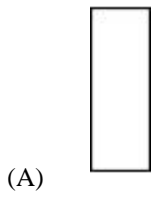
- A. Each shape is a rectangle.
 - B. Each shape is a quadrilateral
 - C. Each shape has two pairs of parallel sides
 - D. Each shape has one or more right angles
3. Think carefully about the following question. Write a complete answer. You may use drawings, words, and numbers to explain your answer. Be sure to show all of your work.



In what ways are the figures above alike? List as many ways as you can.

In what ways are the figures above different? List as many ways as you can.

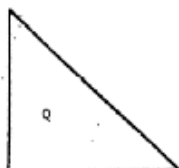
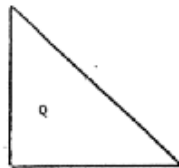
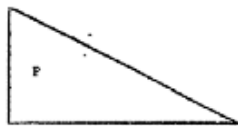
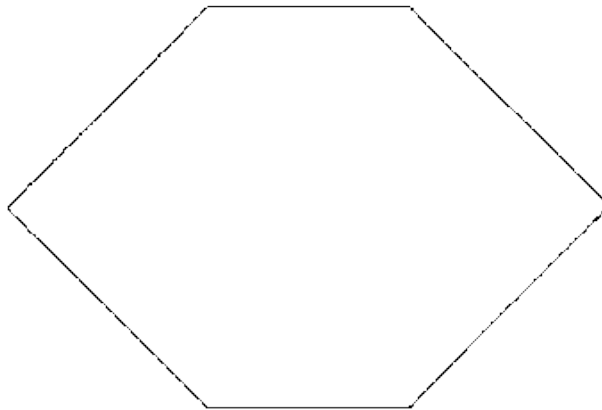
1. Alan says that if a figure has four sides, it must be a rectangle. Gina does not agree. Which of the following figures shows that Gina is correct?



2. In the space below, draw a rectangle 2 inches wide and 3 ½ inches long.

3. For this question you will need some of the pieces labeled N, P, and Q.

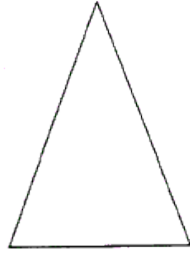
Use 4 of the 6 pieces labeled N, P, and Q to make the shape shown below. Draw the lines to show where the pieces meet and label the pieces.



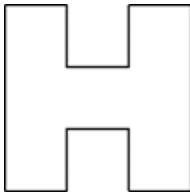
1. Which of the following has only 3 angles?

- (A) A triangle
- (B) A square
- (C) A rectangle
- (D) A cube

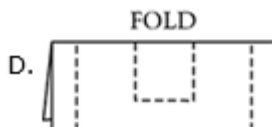
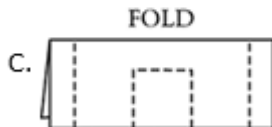
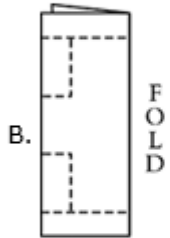
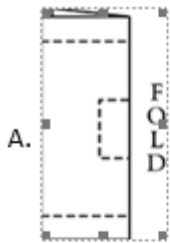
2. Draw a line of symmetry on the triangle below.

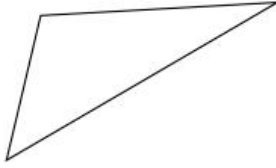


3.

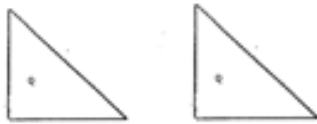


Which figure below, when cut on the dotted lines and unfolded, will look like the figure shown above?

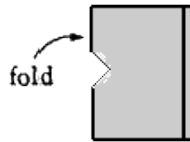




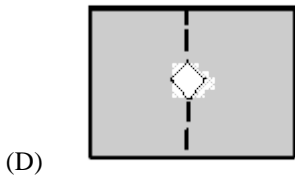
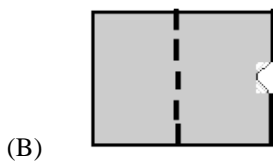
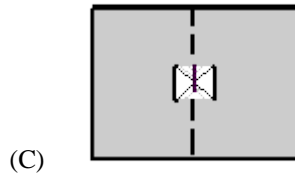
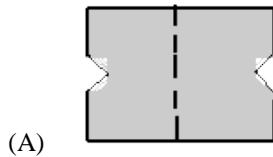
1. How many of the angles in this triangle are smaller than a right angle?
- A. None
 - B. One
 - C. Two
 - D. Three

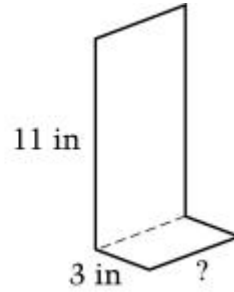
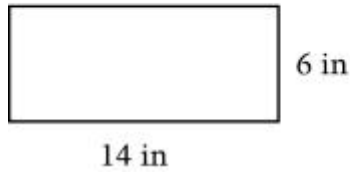


2. Use the 2 pieces above to make a 4-sided shape that is not a square. Trace the shape and draw the line to show where the 2 pieces meet.



3. A sheet of paper is folded once and a piece is cut out as shown above. Which of the following looks like the unfolded paper?

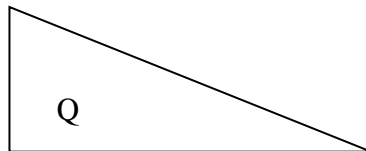
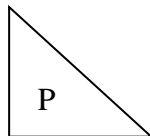
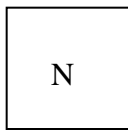




1. A piece of metal in the shape of a rectangle was folded as shown above. In the figure on the right, the "?" symbol represents what length? Explain your reasoning.

- A. 3 inches
- B. 6 inches
- C. 8 inches
- D. 11 inches

2. In the space below, use your ruler to draw a square with two of its corners at the points shown.



3. Laura was asked to choose 1 of the 3 shapes N, P, and Q that is different from the other 2. Laura chose shape N. Explain how shape N is different from shapes P and Q.

Answer: _____

Standard: Foundational (Reasoning)

1. D.

Standard #26

2. Solution:

B. Each shape is a quadrilateral.

Standard #26

3. **Solution:**

Some acceptable reasons for why the figures are alike are listed below.

- a. They both have 4 sides (or 4 corners or 4 angles).
- b. They both have parallel sides.
- c. They both have two sets of sides that are the same length.
- d. They have the same area.
- e. They have the same length (base).
- f. They have the same height.

Notes: 4 sides and 4 angles are not considered different reasons. Indicating that both figures have lines that are straight is not a reason for why they are alike.

Some acceptable reasons for why the figures are different are listed below.

- g. One has 4 equal angles and the other does not.
- h. One has right angles or perpendicular lines and the other does not. (Students don't need to make the comparisons; i.e., they can just say, "one has 4 equal angles".)
- h. One is "slantier" than the other (or one takes up full squares and the other does not).
- i. They have different perimeters.

Note: Indicating that both figures are not the same shape is not acceptable.

Standard #26

1. D.

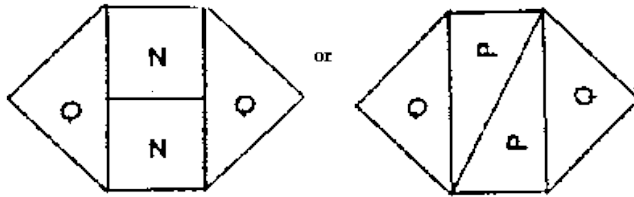
Standard: Foundational Application

2. **Solution:**

Any 2 inch ($\pm 1/8$ ") by 3 1/2 inch ($\pm 1/8$ ") rectangle is acceptable. Sides should be reasonably straight and angles should be about 90° .

Standard: Foundational Application

3. **Solution:**



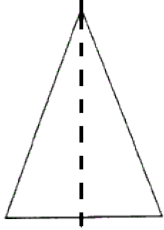
In this question, a student needed to visualize where to place 4 of the 6 given shapes (2 squares, 2 isosceles triangles, and 2 right triangles) so that they formed a 6-sided shape that was already given to the student.

Standard #26

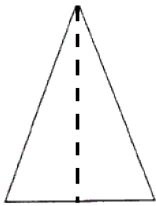
- 1. A. Triangle

Standard #28

- 2. Line may be dotted, or have arrowheads.

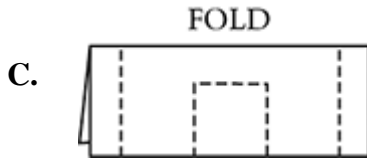


Minimum length of line:



Standard #28

- 3. Solution:



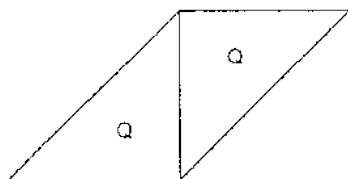
Standard #26

1. Solution:
 - C. Two

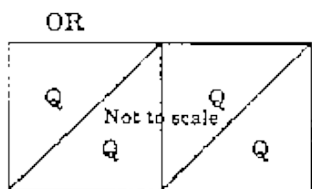
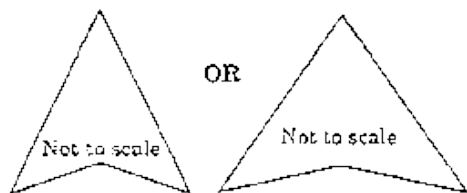
Standard: Foundational Application

2. **Solution:**

Examples of correct response #1 (see note below score & description)



Examples of a correct response #2 (see note below score & description)



Space between pieces is acceptable.
Freehand drawings are acceptable.

In this question, a student needed to take 2 isosceles triangles and construct a 4-sided figure that was not a square or a rhombus. A student had to manipulate 2 figures, form a shape other than a square or rhombus, and draw a line of separation in order

Standard #28

3. D.

Standard: Foundational Reasoning

1. B.

Standard #26

2. B. 6

Standard #27

3. Solution:

N is a square (but P and Q are triangles.)

OR

N has four sides, (or vertices or points or angles), (but P and Q each have 3) .

OR

All the sides of N are equal (but not so with P and Q).

OR

All the angles of N are equal (or, all right angles), (not so with P and Q.)

Must mention both P and Q or neither P nor Q plus N is a square or give other characteristics of N.

In this question, a student needed to compare the shapes with respect to a common attribute such as number of sides or angles or vertices. The student could choose which attribute he or she wished to use.