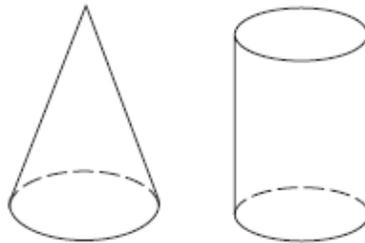


Ohio Achievement Tests – 4th Grade Math

Geometry and Spatial Sense Standard

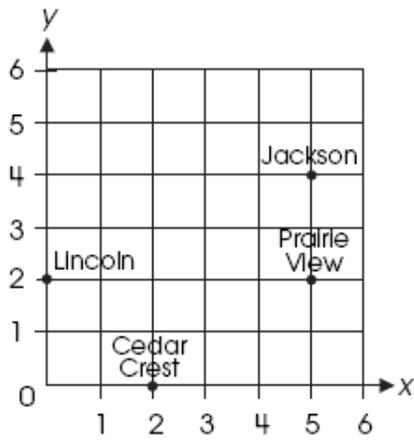
1. A cone and a cylinder are shown.



Give one way that a cone and a cylinder are alike.

Give one way that a cone and a cylinder are different.

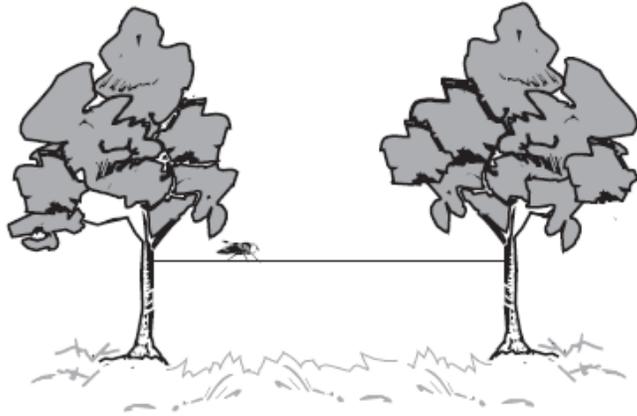
2. Mr. Yang is driving to the school located at $(2, 0)$ on the coordinate grid.



Which school is located at $(2, 0)$?

- A. Cedar Crest
- B. Jackson
- C. Lincoln
- D. Prairie View

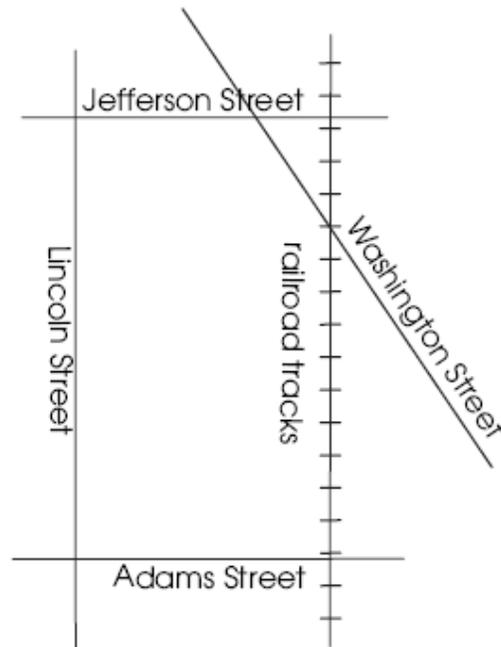
3. A bug lands on a rope stretched between two trees on a lawn at a park.



Which object (the bug, the rope, the lawn, the park) is best described as a point?

- A. bug
- B. rope
- C. lawn
- D. park

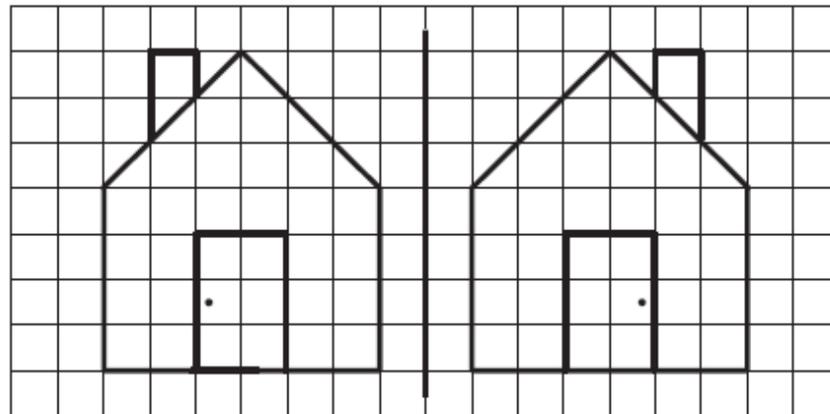
4. A map of Andrew's neighborhood is shown. Andrew lives on the street that appears to be parallel to the railroad tracks.



On which street does Andrew live?

- A. Washington Street
- B. Lincoln Street
- C. Adams Street
- D. Jefferson Street

5. The grid shows two shapes.



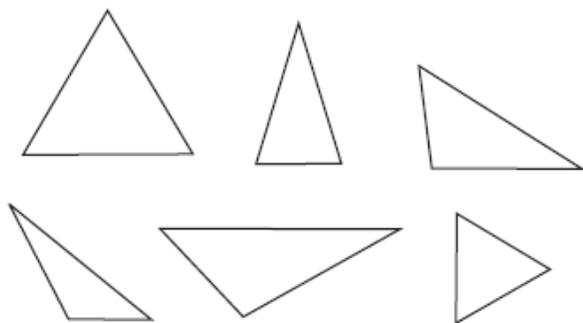
Shape 1

Shape 2

What transformation changed shape 1 to shape 2?

- A. rotation (turn)
- B. translation (slide)
- C. reflection (flip)
- D. no transformation

6. Six triangles are shown.



Circle each triangle that appears to be scalene.

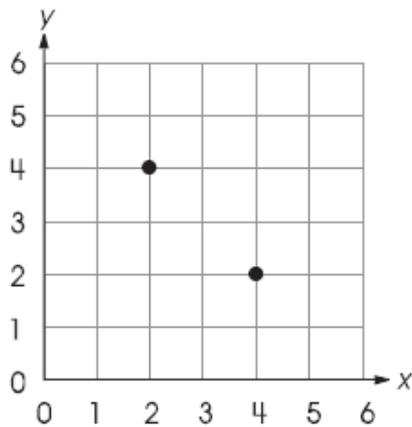
Explain how you decided which triangles are scalene.

7. The shapes shown are part of a design.



What do all these shapes appear to have in common?

- A. All have four right angles.
 - B. All have at least one set of parallel sides.
 - C. All have four equal angles.
 - D. All have at least one set of perpendicular lines.
8. Two points are shown on the coordinate grid.



Plot two more points on the grid so that the four points make a square.
Label the new points J and K.

What are the coordinates of points J and K?

Point J _____

Point K _____

9. Which letter has a pair of parallel line segments?

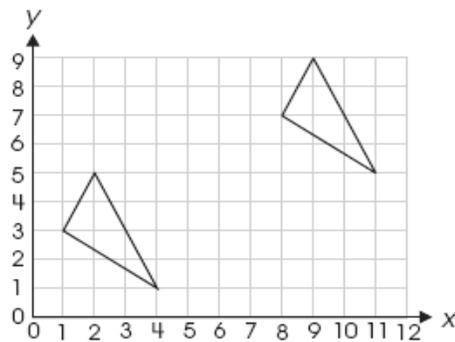
A. **A**

B. **H**

C. **L**

D. **K**

10. Two triangles are drawn on the grid.



Which transformation — reflection (flip), translation (slide) or rotation (turn) — can Bill use to determine whether the two triangles are congruent? _____

Explain how this transformation shows Bill that the two triangles are congruent.

11. Roy drew a triangle with exactly two congruent angles and two congruent sides.

What kind of triangle did Roy draw?

- A. equiangular
 - B. equilateral
 - C. isosceles
 - D. scalene
12. How are a rhombus and a square alike?
- A. They both have four equal sides.
 - B. They both have four right angles.
 - C. They both have four equal angles.
 - D. They both have only one pair of parallel sides.