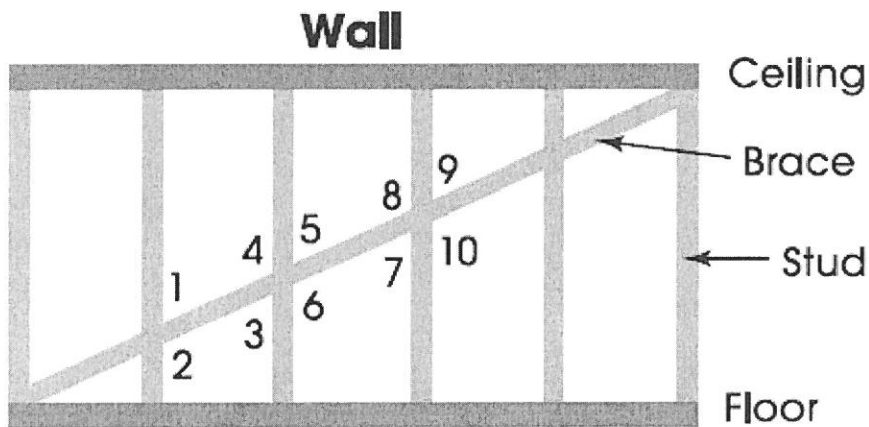


# Blizzard Bag Math I

## Day 2

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Block: 145

1. When framing in a wall, carpenters make sure that all vertical studs are perpendicular to the floor and ceiling. They sometimes add a diagonal brace for added support during construction (as shown in the drawing).

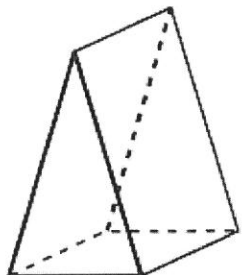


When the vertical studs are perpendicular to the floor, which pair of angles will always be congruent?

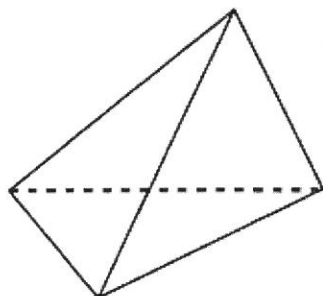
- A.  $\angle 1$  and  $\angle 2$
- B.  $\angle 3$  and  $\angle 6$
- C.  $\angle 5$  and  $\angle 7$
- D.  $\angle 6$  and  $\angle 9$

7. Josie claimed that all polyhedra have more vertices than faces. Which of these polyhedra shows that Josie's statement is **not** always true?

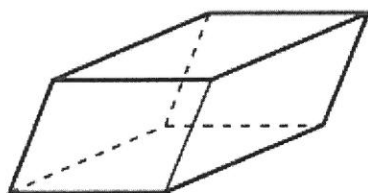
A.



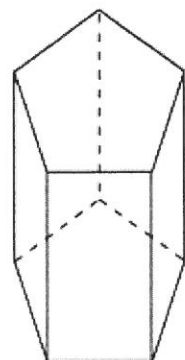
B.



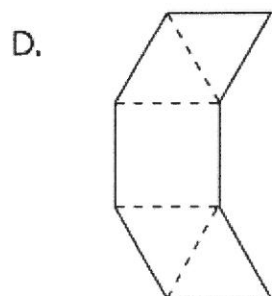
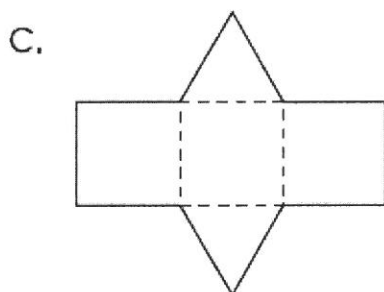
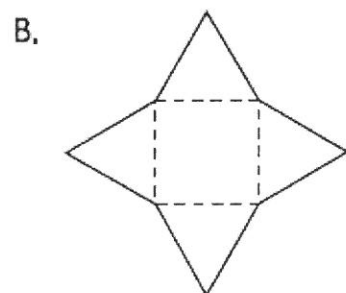
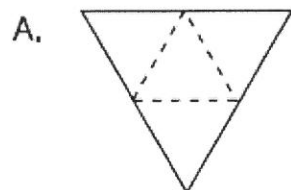
C.



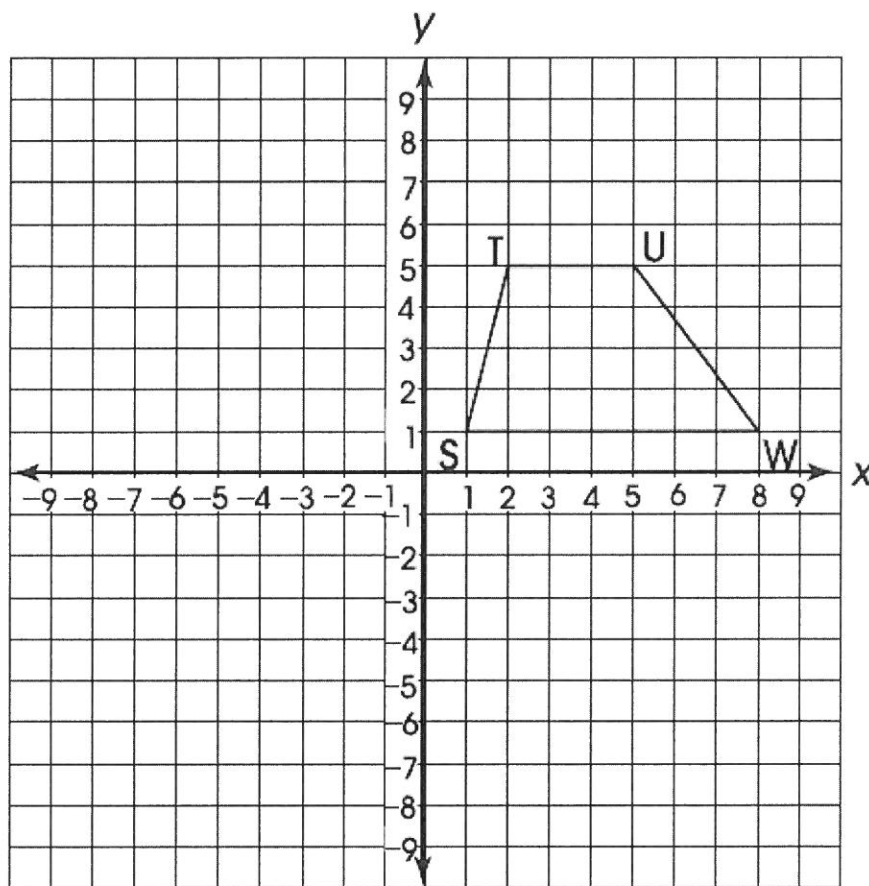
D.



13. Penny needs to make a model of an Egyptian pyramid for her history class. She plans to cut a shape out of thick cardboard and then fold it to make a pyramid with a square base. Which of these nets or shapes could Penny use to make her model?



28. The quadrilateral STUW has vertices at the coordinates (1, 1), (2, 5), (5, 5), and (8, 1), as shown.



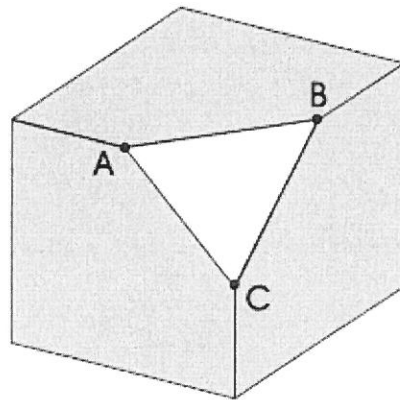
What are the coordinates of the vertices of quadrilateral STUW when it is reflected over the  $x$ -axis?

- A. (1, 1), (2, 5), (5, 5), (8, 1)
- B. (-1, 1), (-2, 5), (-5, 5), (-8, 1)
- C. (-1, -1), (-2, -5), (-5, -5), (-8, -1)
- D. (1, -1), (2, -5), (5, -5), (8, -1)

32. The angle of the roof on Kaya's dollhouse is  $56^\circ$ . She built a scale model of the dollhouse with a scale ratio of 1 : 4. What is the measure of the angle of the roof of the model?

A.  $14^\circ$   
B.  $34^\circ$   
C.  $56^\circ$   
D.  $224^\circ$

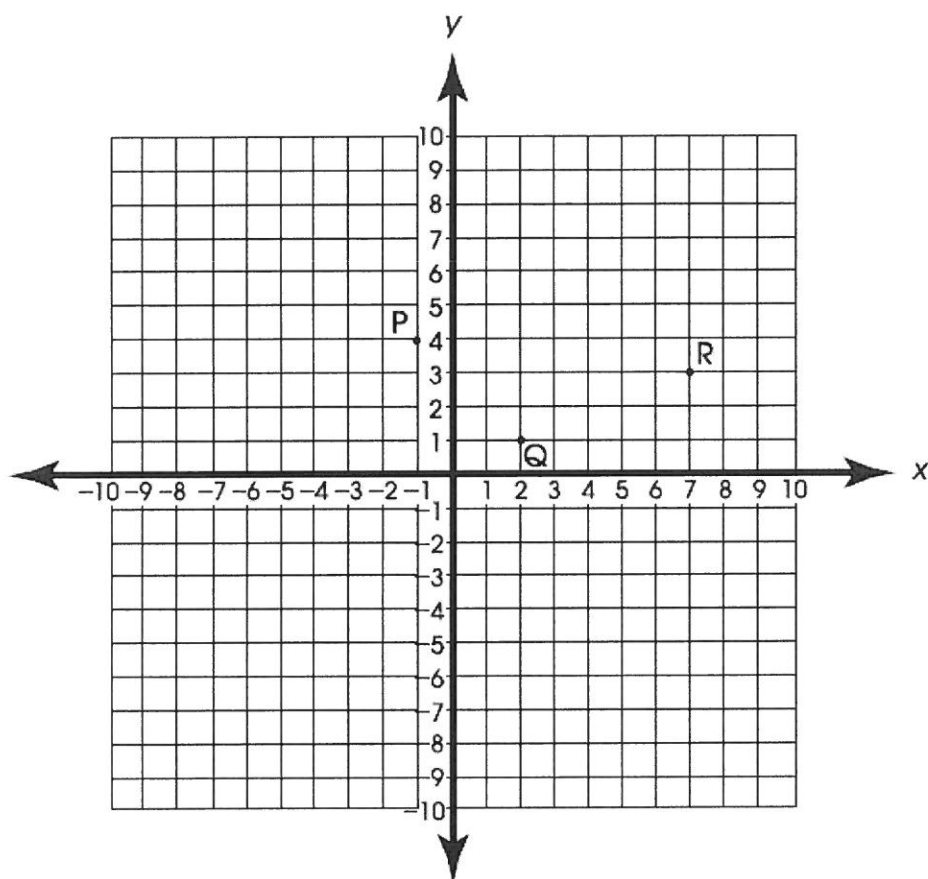
13. Daniel cut the corner off a cube as shown in the diagram below.



Points A, B and C are the midpoints of the edges of the cube. What type of three-dimensional figure has been cut off?

A. cone  
B. cube  
C. triangular prism  
D. triangular pyramid

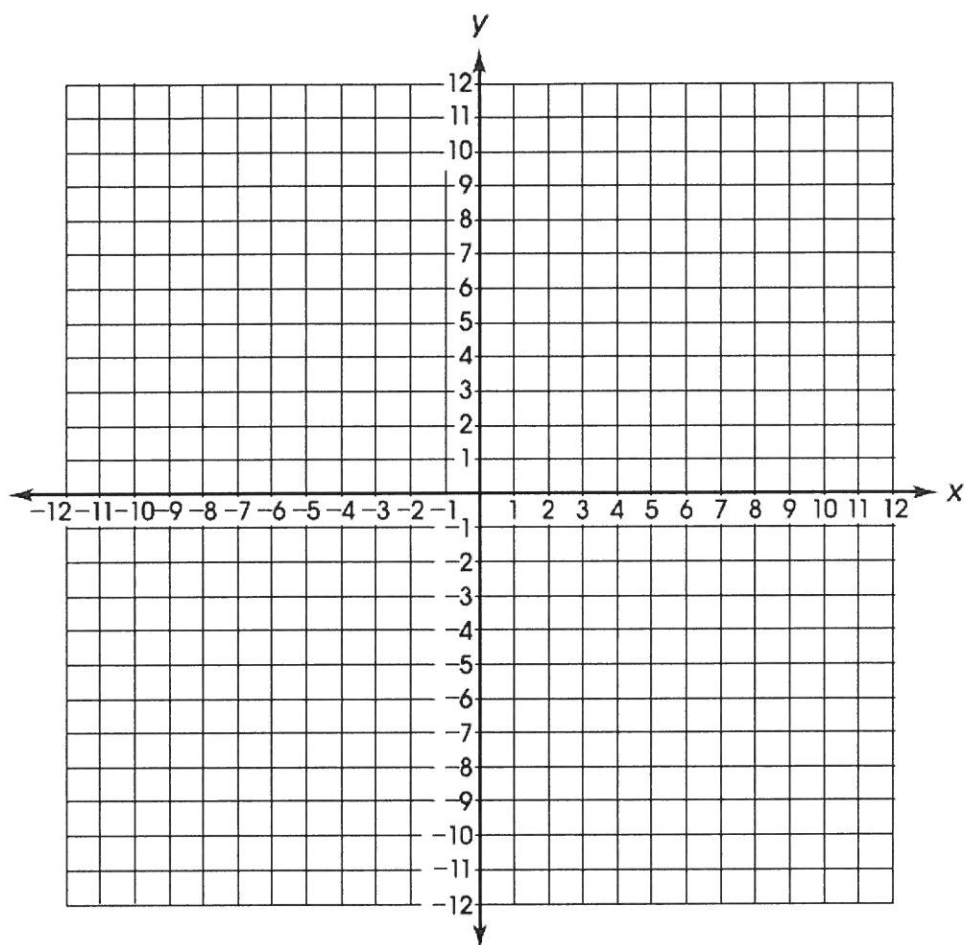
30. Points P, Q and R are shown below.



These points are three vertices of a parallelogram. What are the coordinates of the fourth vertex of parallelogram PQRS?

- A. (4, 6)
- B. (5, 2)
- C. (8, -1)
- D. (9, 1)

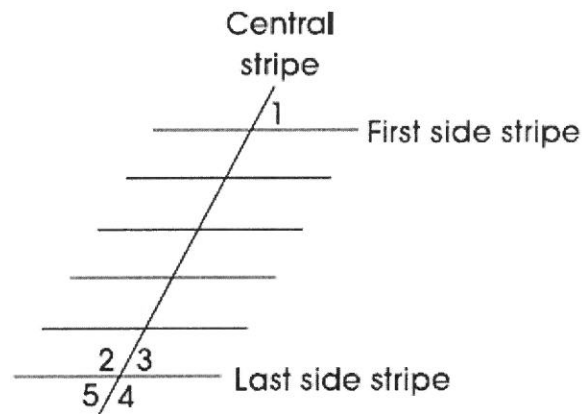
35. The vertices of a quadrilateral are  $(2, 2)$ ,  $(4, 6)$ ,  $(8, 2)$ , and  $(10, 6)$ .



Which describes this quadrilateral?

- A. parallelogram
- B. rectangle
- C. rhombus
- D. square

25. A worker painted stripes for spaces in a parking lot. The worker first painted a center stripe that marked the front of the parking spaces. Then he painted parallel stripes marking the sides.



Which angles will be congruent to angle 1 if all the side stripes are parallel?

- A.  $\angle 2$  and  $\angle 3$
- B.  $\angle 2$  and  $\angle 5$
- C.  $\angle 3$  and  $\angle 5$
- D.  $\angle 4$  and  $\angle 5$