

Name: \_\_\_\_\_

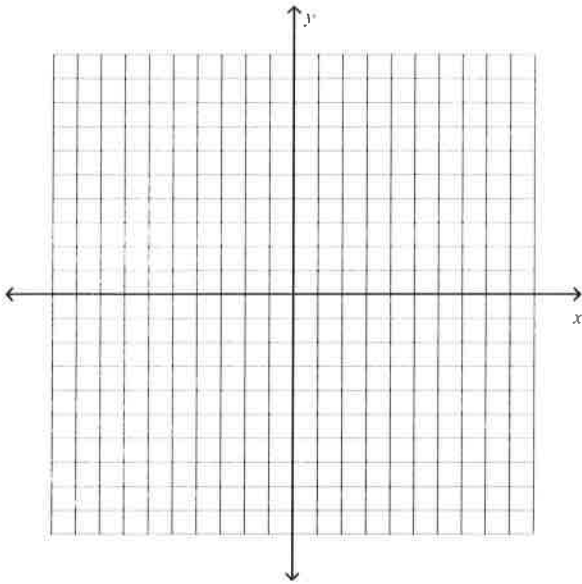
### Chapter 10 PRACTICE Test - Calculators Allowed

Draw the triangle with the given vertices.

Then find the coordinates of the vertices of the image after the specified transformation, and draw the new image.

1.  $S(-2, 4)$ ,  $T(-1, 1)$ ,  $U(-4, -3)$ ;

Reflect  $\triangle STU$  over the **y-axis**.



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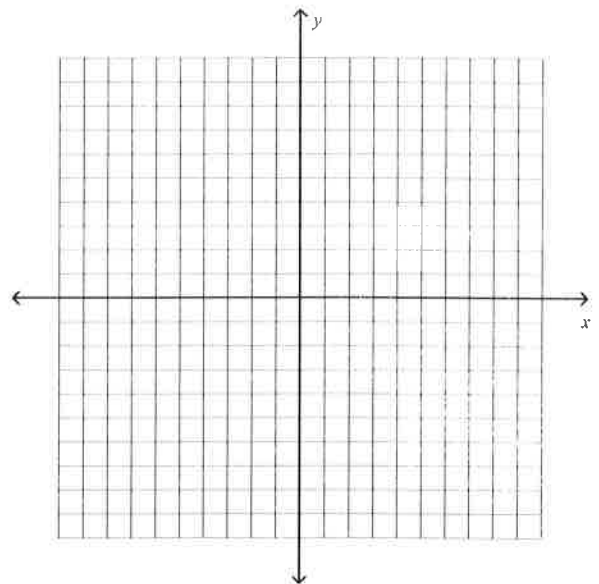
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Draw the quadrilateral with the given vertices.

Then find the coordinates of the vertices of the image after the specified translation, and draw the new image.

2.  $R(4, 4)$ ,  $S(6, 6)$ ,  $T(8, 6)$ ,  $U(6, 4)$ ;

$$(x, y) \rightarrow (x - 5, y - 4).$$



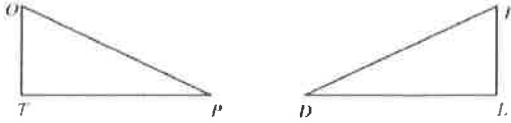
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Use the fact that  $\triangle TOP \cong \triangle LID$  to complete the congruence statements.



3.  $\angle T \cong$  \_\_\_\_\_

- A.  $\angle D$
- B. None of these
- C.  $\angle L$
- D.  $\angle I$

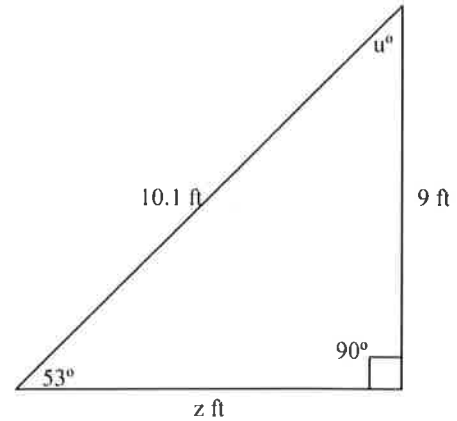
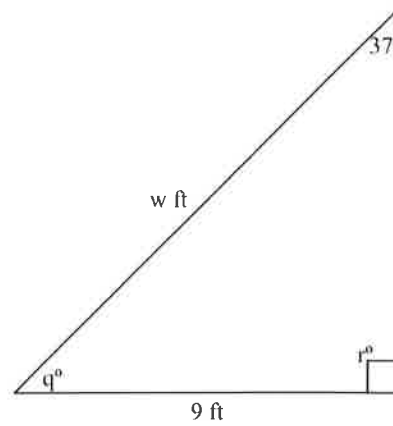
4.  $\overline{LD} \cong$  \_\_\_\_\_

- A.  $\overline{OT}$
- B.  $\overline{PO}$
- C. None of these
- D.  $\overline{TP}$

5. Which of the following is NOT always true about similar figures?

- A. The corresponding sides of similar figures have proportional lengths.
- B. The corresponding angles of similar figures have equal measure.
- C. Similar figures have the same area.
- D. Similar figures have the same shape.

6. The two triangles are congruent. Find the missing side lengths and angle measures.

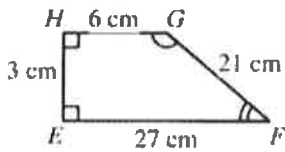
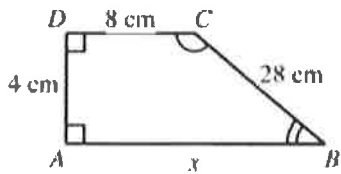


- A.  $q = 53$ ;  $r = 90$ ;  $w = 10.1$ ;  $u = 37$ ;  $z = 9$
- B.  $q = 90$ ;  $r = 53$ ;  $w = 9$ ;  $u = 37$ ;  $z = 9$
- C.  $q = 53$ ;  $r = 90$ ;  $w = 9$ ;  $u = 37$ ;  $z = 10.1$
- D.  $q = 53$ ;  $r = 53$ ;  $w = 10.1$ ;  $u = 37$ ;  $z = 9$

7. If two polygons are similar, then the lengths of corresponding sides must be ?.

- A. congruent
- B. similar
- C. parallel
- D. proportional

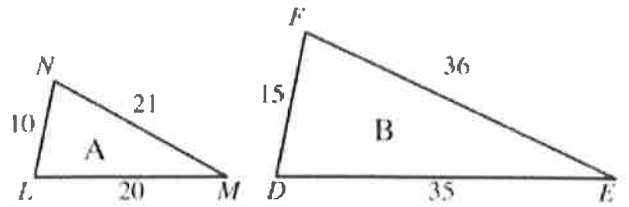
8. Find the unknown length  $x$  given that the polygons are similar.



- A. 39 cm
- B. 34 cm
- C. 36 cm
- D. 35 cm

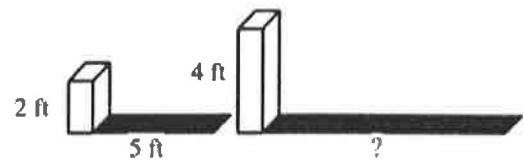
Tell whether the two polygons are similar. Use a proportion to prove your answer.

9.



- A. Not similar
- B. Similar

10. The smaller box is 2 feet tall and casts a shadow 5 feet long. The larger box is 4 feet tall. (Figures may not be drawn to scale.)



How long is the shadow that the larger box casts?

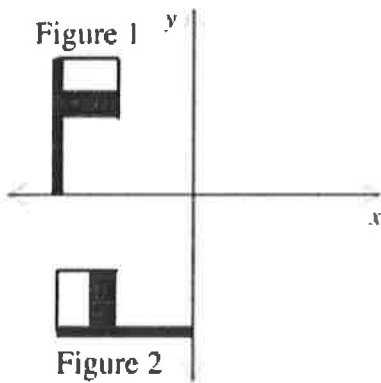
- A. 25 ft
- B. 2 ft
- C. 10 ft
- D. 6 ft

11. A building casts a shadow 260 meters long. At the same time, a nearby pole 3 meters high casts a shadow 15 meters long. What is the height of the building?  
(Hint: Draw a picture)

- A. 248 meters
- B. 18 meters
- C. 52 meters
- D. 1300 meters

Identify the transformation.

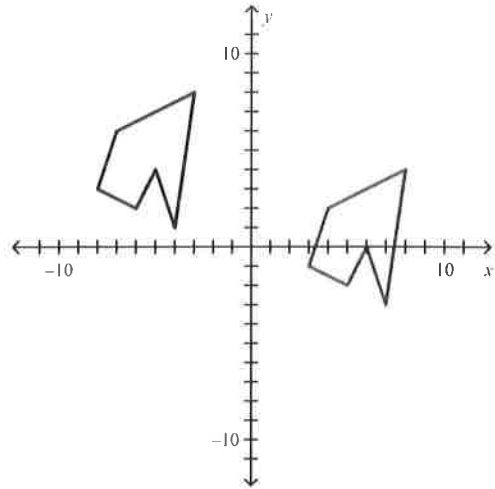
12.



Answer: \_\_\_\_\_

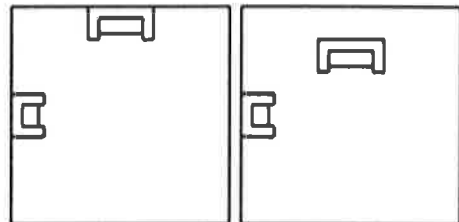
Identify the transformation.

13.



- A. dilation
- B. translation
- C. rotation
- D. reflection

14. Look at the arrangement of the sofa and chair in the room.



Which type of transformation best describes the change in the drawing of the room from the left-hand drawing to the right-hand drawing?

Answer: \_\_\_\_\_