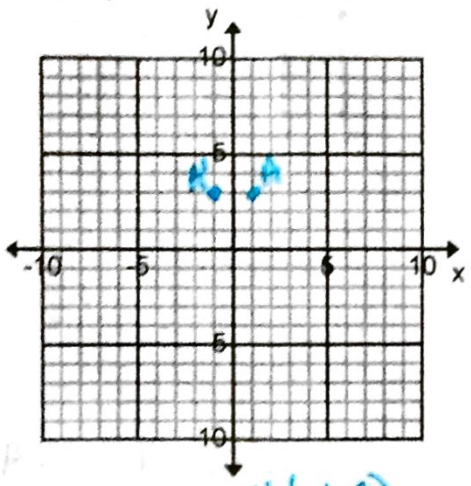
Name: Key Period: SCORE: / = %=

Sec1H **Review Sheet** **Unit 8**

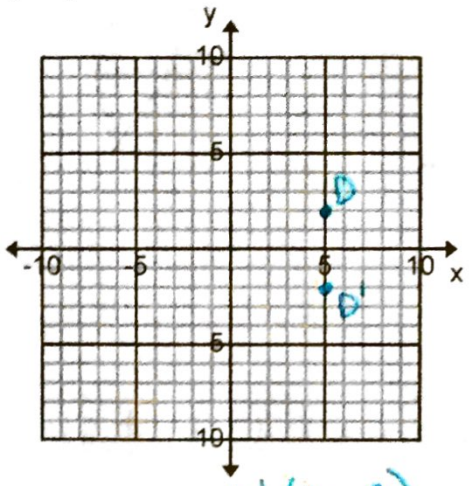
Find the coordinates of the transformation.

1. $A(1,3)$ reflected in the $y-$axis.



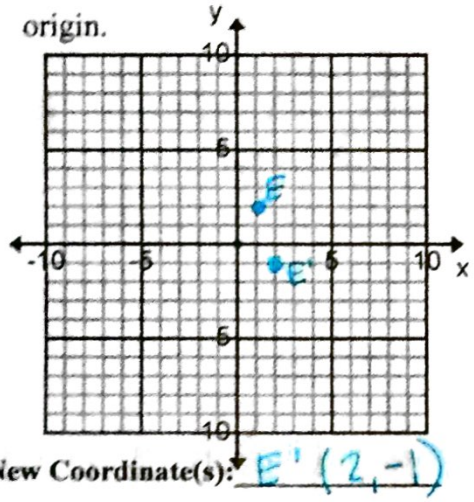
New Coordinate(s): A' (-1, 3)

2. $D(5,2)$ reflected is the $x-$axis.



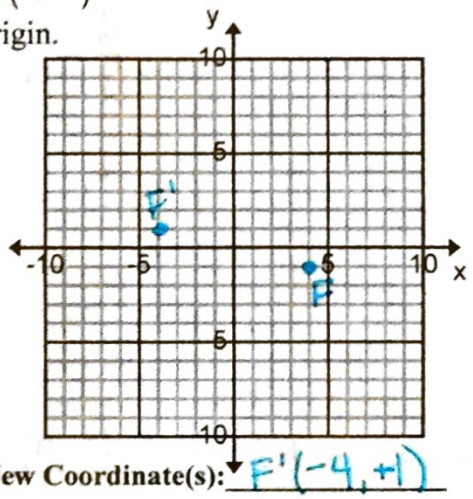
New Coordinate(s): D' (5, -2)

3. $E(1,2)$ rotated 90° clockwise about the origin.



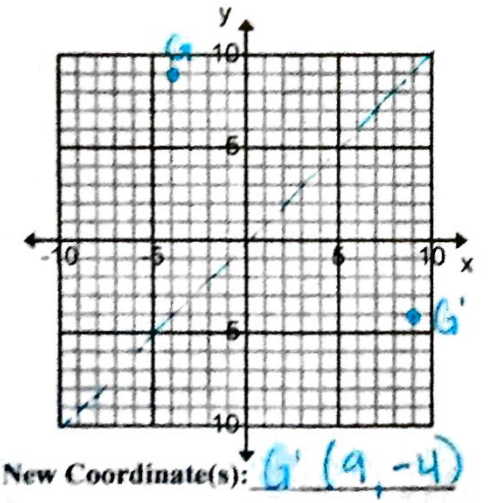
New Coordinate(s): E' (2, -1)

4. $F(4,-1)$ rotated 180° clockwise about the origin.



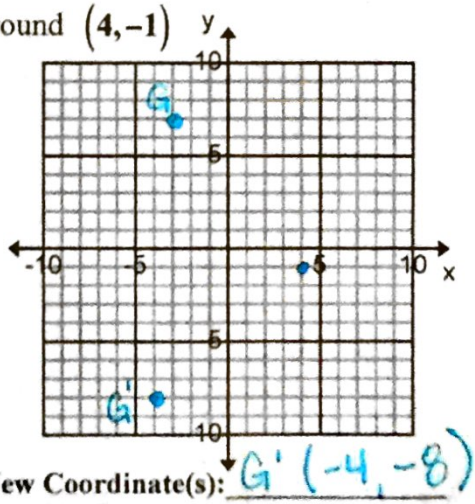
New Coordinate(s): F' (-4, +1)

5. $G(-4,9)$ reflected in the line $y = x$.



New Coordinate(s): G' (9, -4)

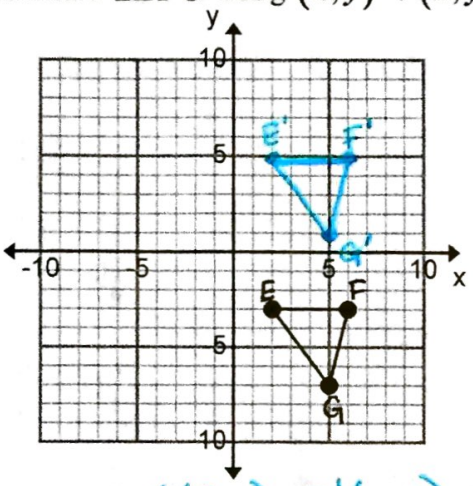
6. $G(-3,7)$ rotated 90° counterclockwise around $(4,-1)$



New Coordinate(s): G' (-4, -8)

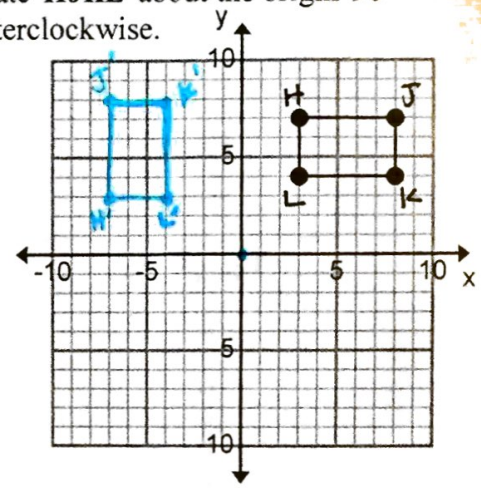
Transform each given geometric figure on the coordinate plane as described. Write the new coordinates.

7. Translate $\triangle EFG$ using $(x, y) \rightarrow (x, y+8)$



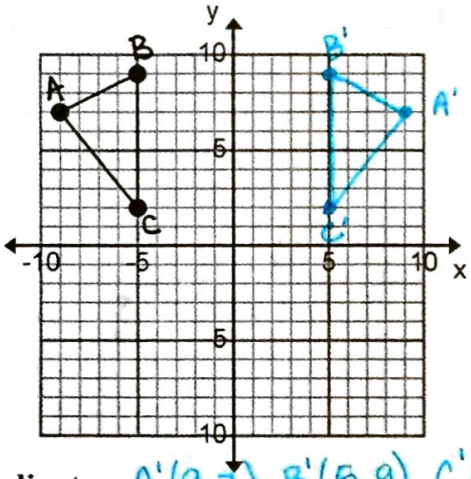
New Coordinates: E'(2,5) F'(6,5) G'(5,1)

8. Rotate $HJKL$ about the origin $90°$ counterclockwise.



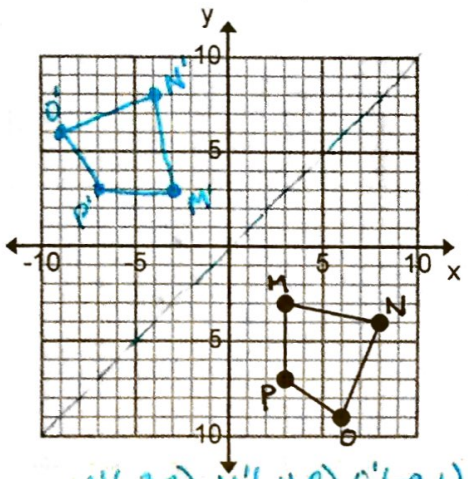
New Coordinates: H'(-7,3) J'(-7,8) K'(-4,8) L'(-4,3)

9. Reflect $\triangle ABC$ over the y-axis.



New Coordinates: A'(9,7) B'(5,9) C'(5,2)

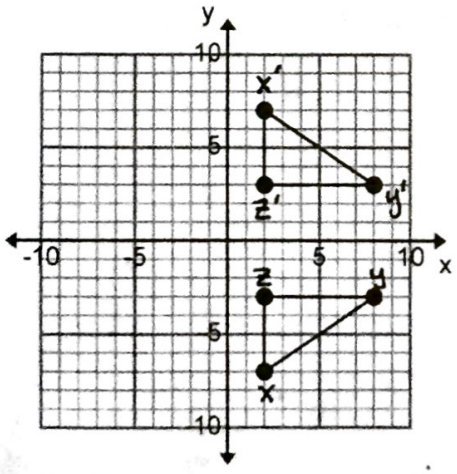
10. Reflect $MNOP$ over the line $y = x$.



New Coordinates: M'(-3,3) N'(-4,8) O'(-9,6) P'(-7,3)

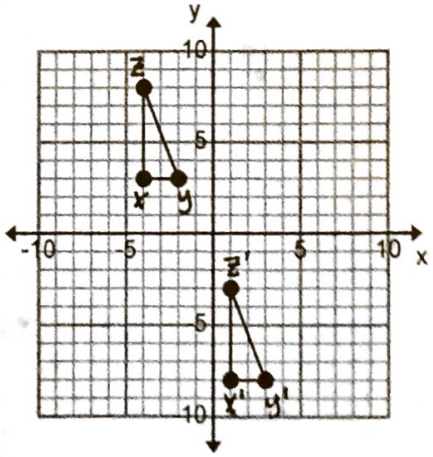
Identify the transformation used to create $\triangle XYZ$ on each coordinate plane.

11.



Reflect across x-axis

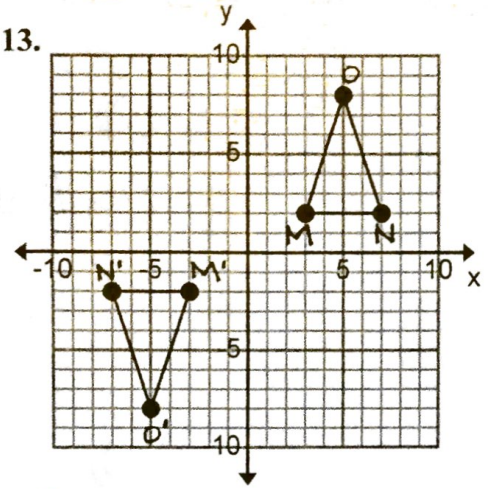
12.



Translate
$(x, y) \rightarrow (x+5, y-11)$

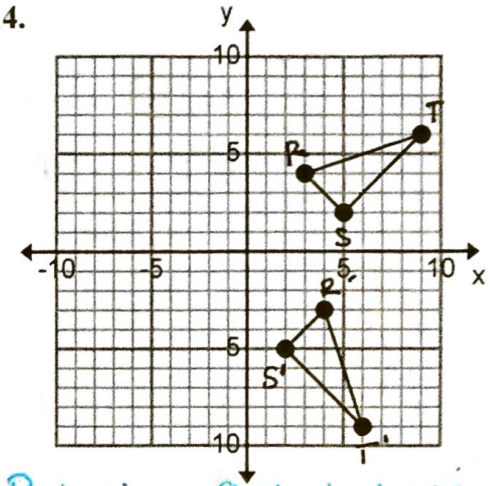
Identify the transformation used to create the new triangle on each coordinate plane.

13.



Rotation 180° centered at the origin

14.

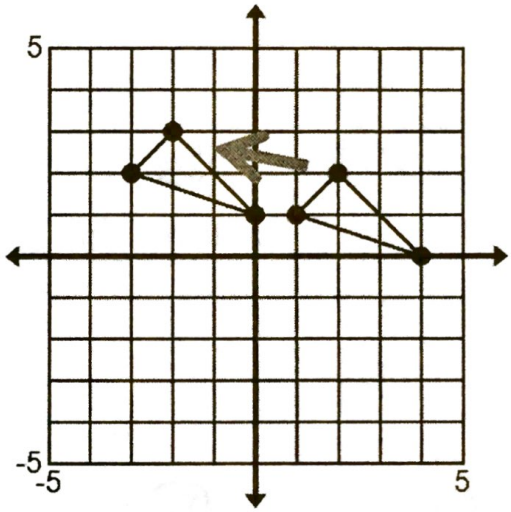


Rotation 90° clockwise about the origin

15. Identify and describe the transformation

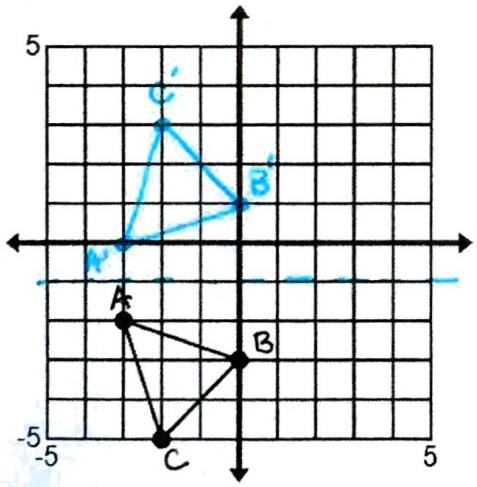
Identify Translate

Details: $(x,y) \rightarrow (x-4, y+1)$



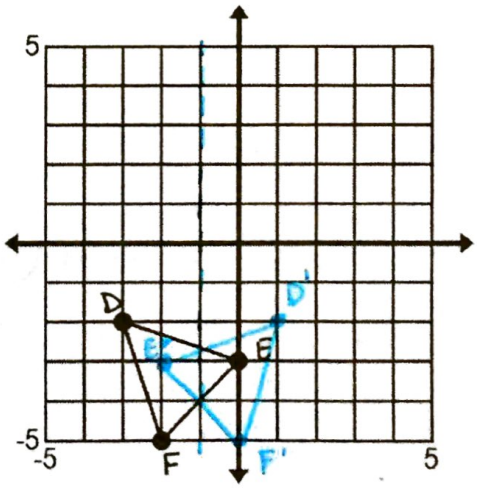
State the vertices of the image after the transformation.

16. Reflect the triangle across the line **y = -1**



New Coordinates: A'(-3,0) B'(0,1) C'(-2,3)

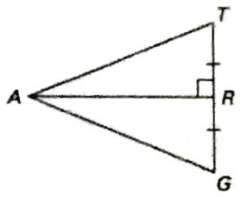
17. Reflect the triangle across the line **x = -1**



New Coordinates: D'(1,-2) E'(-2,-3) F'(0,-5)

A. Decide whether enough information is given to prove that the triangles are congruent.
B. If there IS enough information, state the congruence postulate or theorem you would use.

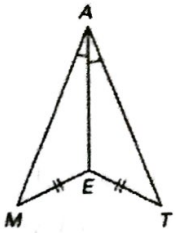
18.



A. (Yes) or No

B. If Yes, SAS

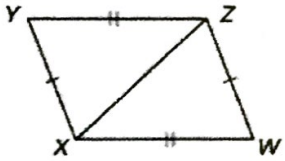
19.



A. Yes or (No)

B. If Yes, _____

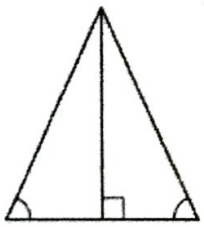
20.



A. (Yes) or No

B. If Yes, SSS

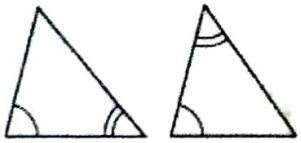
21



A. (Yes) or No

B. If Yes, AAS

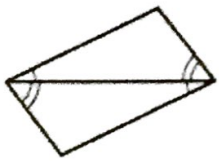
22.



A. Yes or (No)

B. If Yes, _____

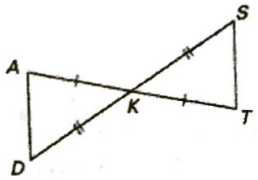
23.



A. (Yes) or No

B. If Yes, ASA

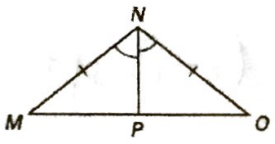
24.



A. (Yes) or No

B. If Yes, SAS

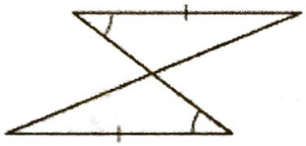
25.



A. (Yes) or No

B. If Yes, SAS

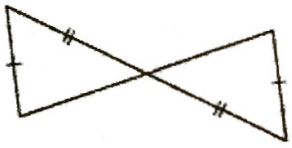
26.



A. (Yes) or No

B. If Yes, AAS

27.



A. Yes or (No)

B. If Yes, _____

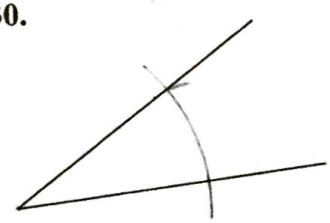
Construct a separate line segment twice as long as the given line segments. Start your new segments at point X.

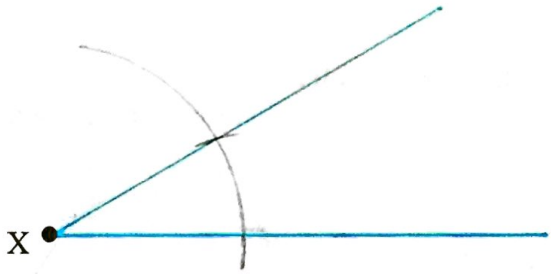
28.

29.

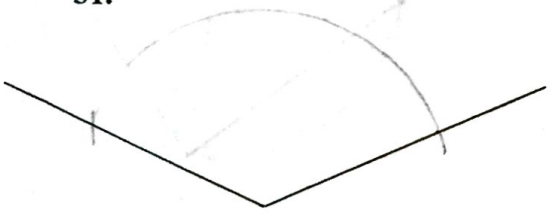
Copy each angle to form a congruent angle. Make point X be the vertex of your new angle.

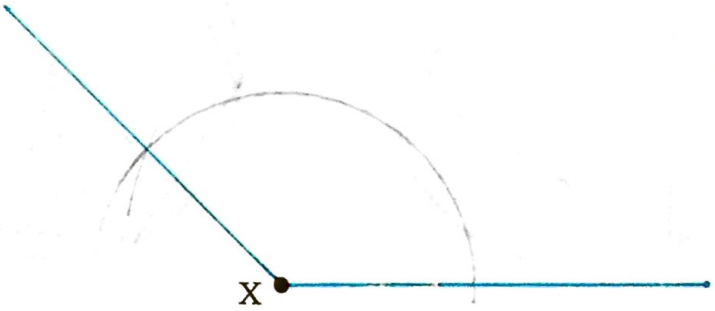
30.





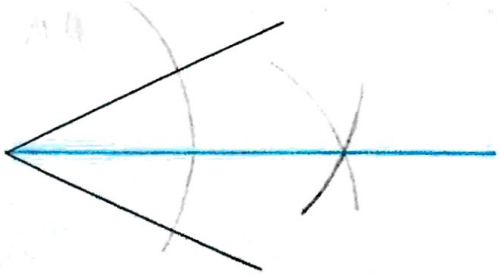
31.





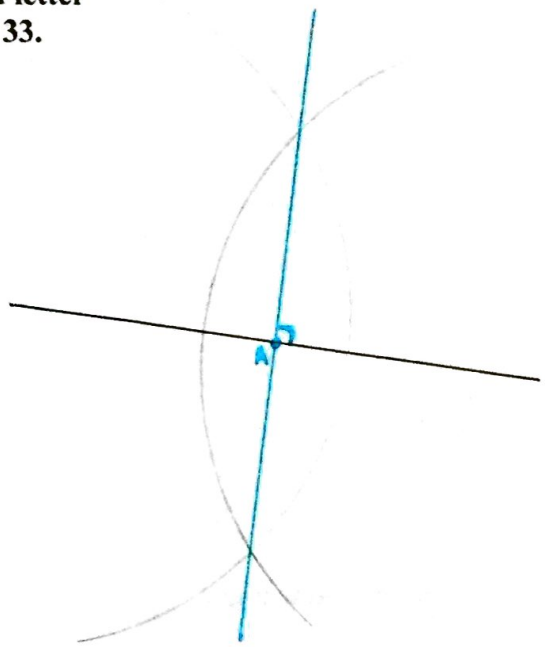
Bisect the angle

32.

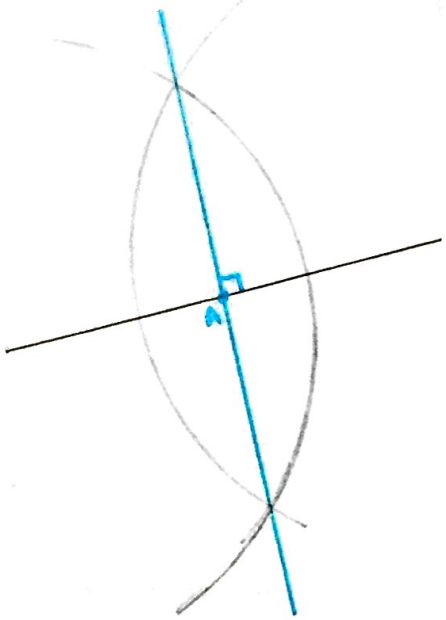


Create a perpendicular bisector of the lines to find the midpoint. Clearly mark the midpoint with a dot and letter

33.

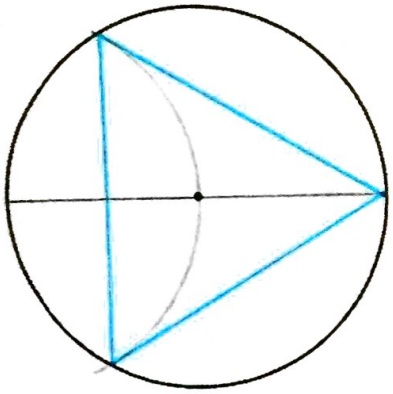


34.

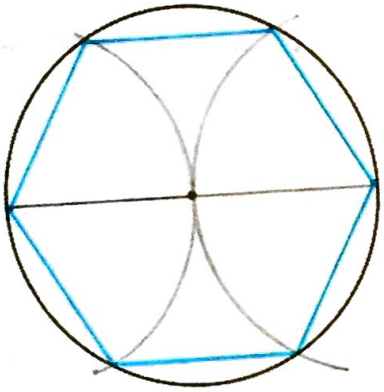


Inscribe the shape inside the given circle.

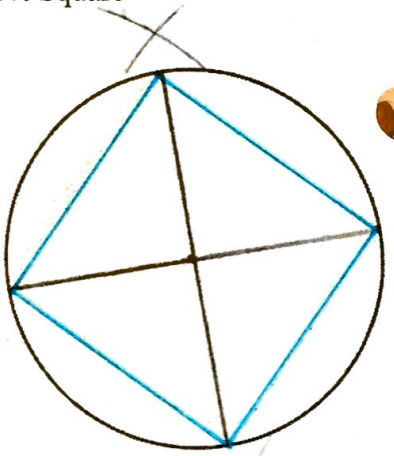
35. Equilateral Triangle



36. Regular Hexagon



37. Square



If two people were to be given the following pieces of information, would they both HAVE to make the same triangle? Or could they make two different triangles? Draw a picture and tell how you know.

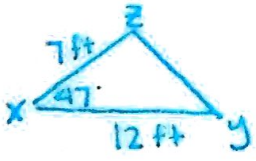
38. $m\angle F = 90°, \overline{DE} = 14\ in., \overline{EF} = 6\ in.$

Yes, HL

39. $m\angle J = 32°, m\angle K = 45°\ \overline{KL} = 5\ units$

Yes, AAS

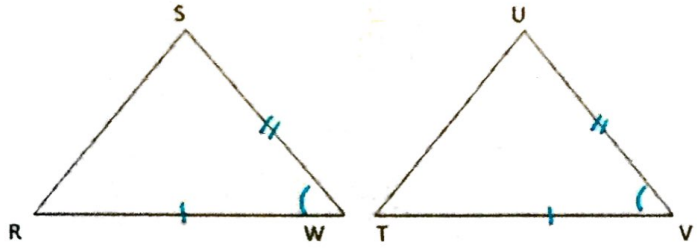
40. $m\angle X = 47°, \overline{ZX} = 7\ ft., \overline{YX} = 12\ ft.$



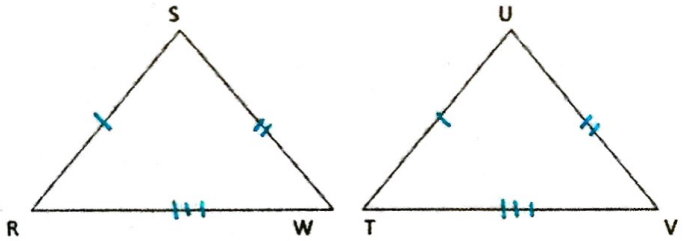
Yes
SAS

Add the necessary markings to prove each set of triangles congruent by the given congruence postulate or theorem.

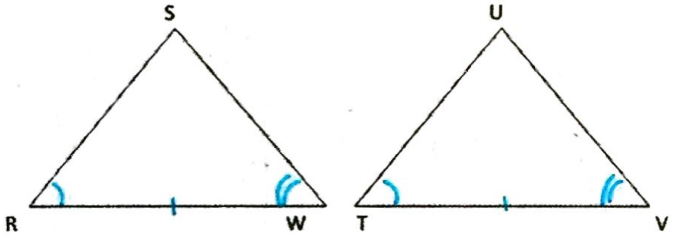
41. SAS



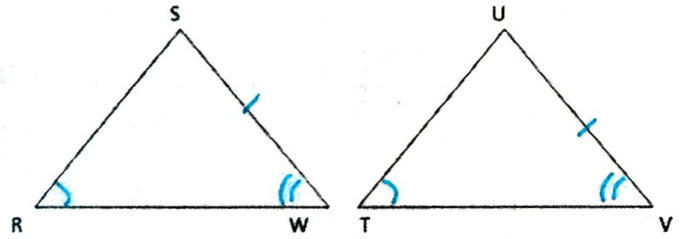
42. SSS



43. ASA



44. AAS



45. HL