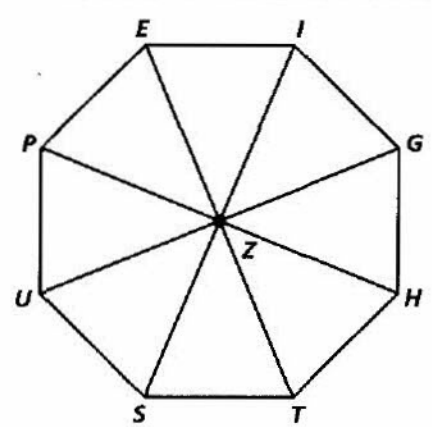


Practice 12-3

Rotations

Regular octagon *EIGHTSUP* is divided into eight congruent triangles. Find the image of each point or segment for the given rotation.

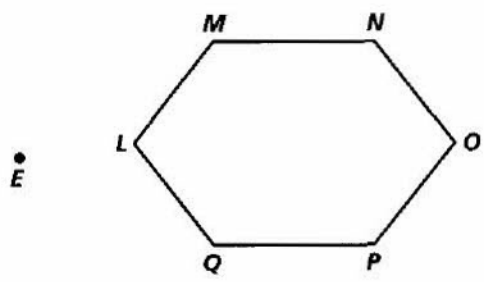


1. 45° rotation of G about Z
2. 225° rotation of U about Z
3. 315° rotation of E about Z
4. 270° rotation of \overline{EI} about Z
5. 135° rotation of S about Z
6. 360° rotation of \overline{ST} about Z

Copy each figure and point P . Draw the image of each figure for the given rotation about P . Label the vertices of each image.

7. 70°
8. 50°
9. 90°

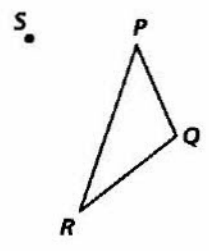
10. Rotate the hexagon 60° about point E , draw its image, and label the vertices. Repeat this procedure three more times, rotating the original figure 120° , 180° , and 240° .



11. In Exercise 10, which vertex is closest to point E in all four figures?

Copy $\triangle PQR$ and point S . Then draw the image for the given composition of rotations about point S .

12. 20° and then 70°
13. 30° and then 30°



All rights reserved.

© Pearson Education, Inc., publishing as Pearson Prentice Hall.