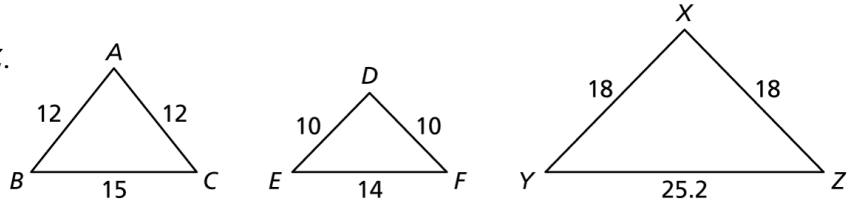


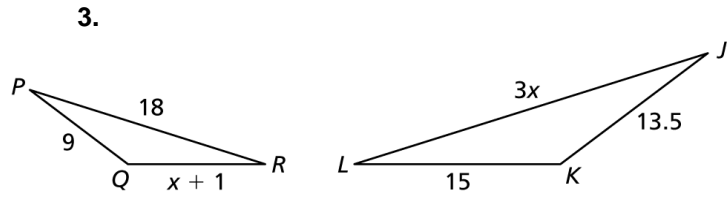
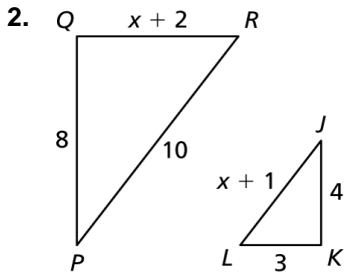
8.3

Practice A

1. Determine whether $\triangle ABC$ or $\triangle DEF$ is similar to $\triangle XYZ$.



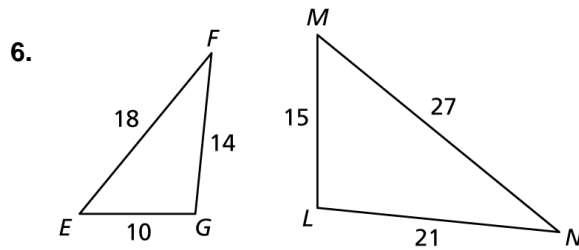
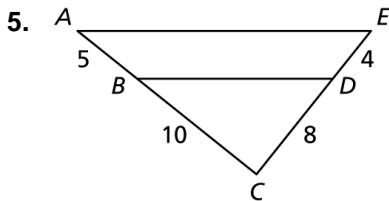
In Exercises 2 and 3, find the value of x that makes $\triangle PQR \sim \triangle JKL$.



4. Verify that $\triangle TUV \sim \triangle XYZ$. Find the scale factor of $\triangle TUV$ to $\triangle XYZ$.

$\triangle TUV: TU = 15, UV = 21, TV = 18$ $\triangle XYZ: XY = 35, YZ = 49, XZ = 42$

In Exercises 5 and 6, show that the triangles are similar and write a similarity statement. Explain your reasoning.



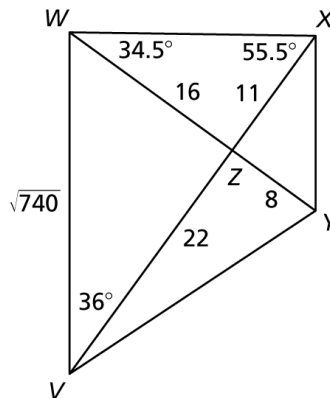
In Exercises 7–11, use the diagram to copy and complete the statement.

7. $\triangle VWZ \sim$ _____ 8. $m\angle VZY =$ _____

9. $m\angle VWY =$ _____ 10. $m\angle WXY =$ _____

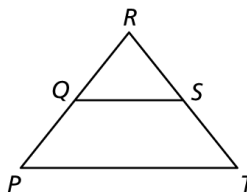
11. $XY =$ _____

12. In the figure for Exercises 7–11, is $\triangle WXZ \sim \triangle YVZ$? Explain your reasoning.



13. Use the figure to write a two-column proof.

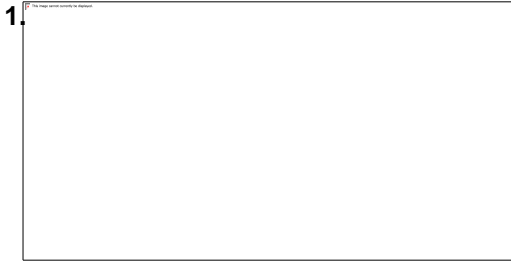
Given: $\frac{PR}{QR} = \frac{TR}{SR}$ **Prove:** $\overline{QS} \parallel \overline{PT}$



8.3

Practice B

In Exercises 1 and 2, find the value of x that makes $\triangle ABC \sim \triangle RST$.

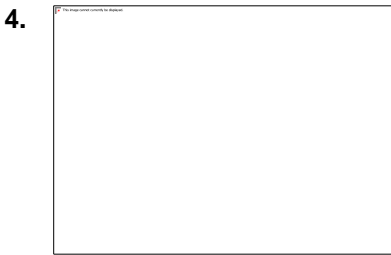


3 Verify that $\triangle JKL \sim \triangle PQR$. Find the scale factor of $\triangle JKL$ to $\triangle PQR$.

$\triangle JKL$: $JK = 15, KL = 30, JL = 25$

$\triangle PQR$: $PQ = 12, QR = 24, PR = 20$

In Exercises 4 and 5, show that the triangles are similar and write a similarity statement. Explain your reasoning.



6. $\triangle ABC$ has side lengths 42, 21, and 35 units. The shortest side of a triangle similar to $\triangle ABC$ is 9 units long. Find the other lengths of the triangle.

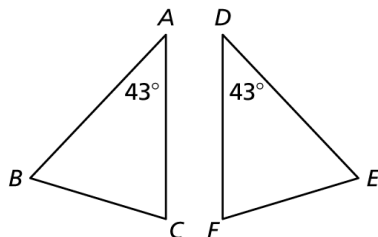
7. Use the figure to find the values of $x, y,$ and z that makes $\triangle DEF \sim \triangle GHF$.



Use the figure to write a two-column proof

8. Given: $\frac{AC}{DF} = \frac{AB}{DE}$

Prove: $\angle B \cong \angle E$



9. Given: $LN = 2x$

$MN = 2y$

$NP = x$

$NQ = y$

Prove: $\triangle MLN \sim \triangle PQN$

