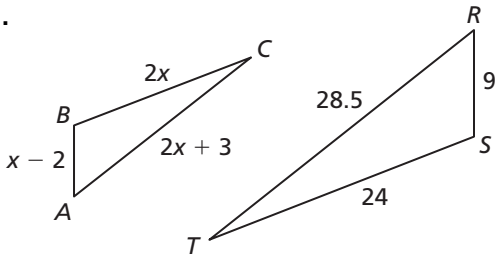
Name_____ Date _____

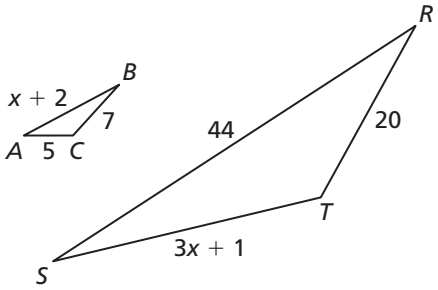
8.5 Practice B

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

1.



2.

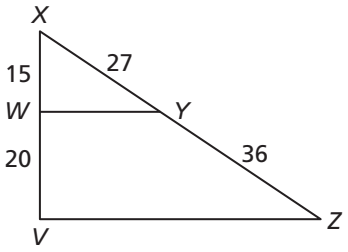


3 Verify that $\triangle JKL \sim \triangle PQR$. Find the scale factor of $\triangle JKL$ to $\triangle PQR$.

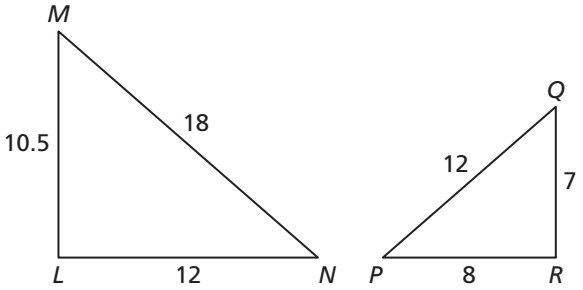
$\triangle JKL$: $JK = 15$, $KL = 30$, $JL = 25$ $\triangle PQR$: $PQ = 12$, $QR = 24$, $PR = 20$

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

4.

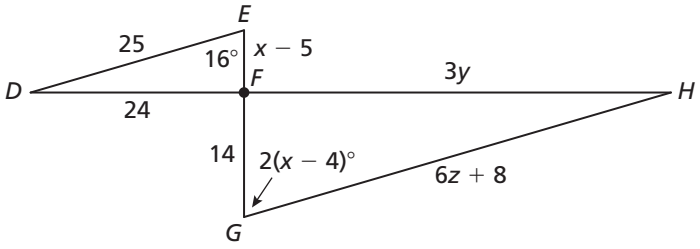


5.



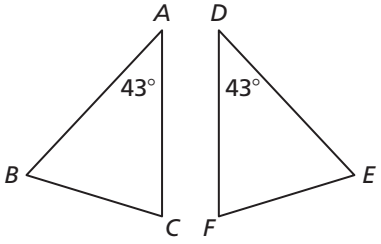
6. $\triangle ABC$ has side lengths 42, 21, and 35 units. The shortest side of a triangle similar to $\triangle ABC$ is 9 units long. Find the other lengths of the triangle.

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 $\triangle MLN \sim \triangle PQN$