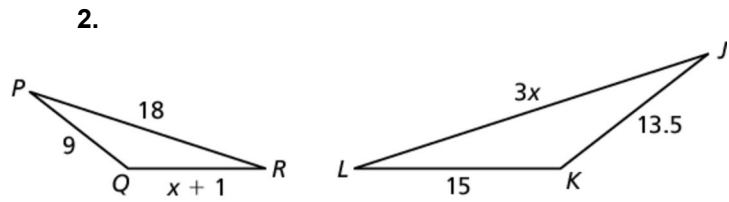
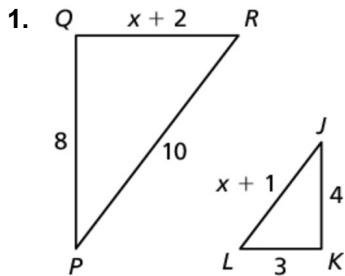


LESSON
11-3

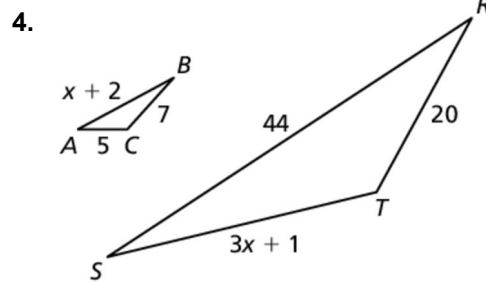
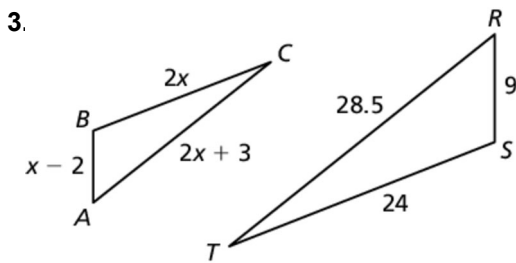
Corresponding Parts of Similar Figures

Practice and Problem Solving: A/B

In Exercises 1 and 2, find the value of x that makes $\triangle PQR \sim \triangle JKL$



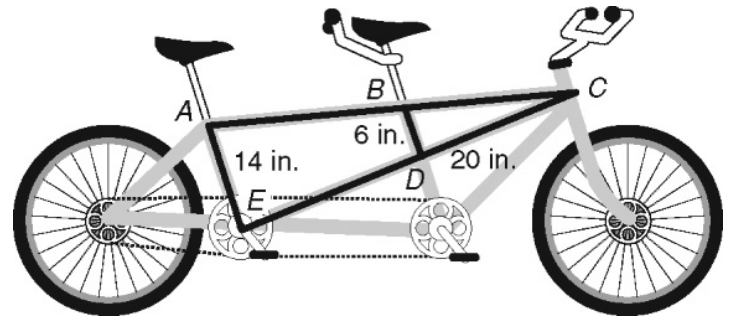
In Exercises 3 and 4, find the value of x that makes $\triangle ABC \sim \triangle RST$



5. A photo is 12 in. wide by 18 in. tall. If the width is scaled down to 9 inches, how tall should the similar photo be?

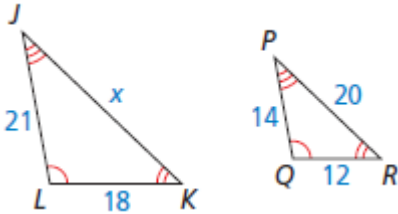
6. An isosceles triangle has a base of 20 cm and legs measuring 36 cm. How long are the legs of a similar triangle with base measuring 50 cm?

7. In the diagram of the tandem bike, $\overline{AE} \parallel \overline{BD}$. Find CE to the nearest tenth. Show your work.

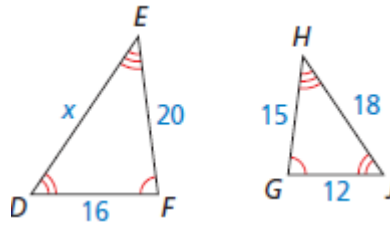


In Exercises 8 – 11, the polygons are similar. Find the value of x .

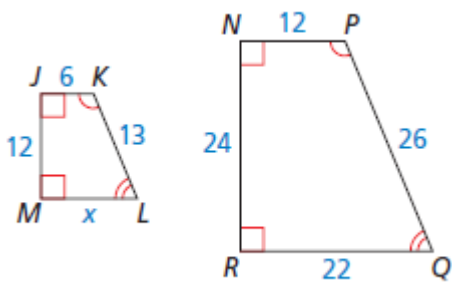
8. $\triangle LJK \sim \triangle QPR$



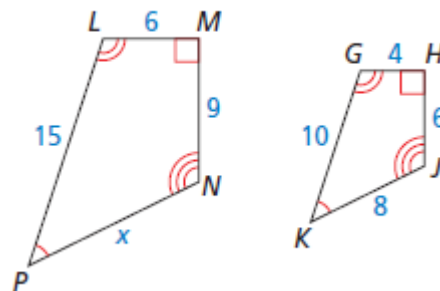
9. $\triangle DEF \sim \triangle JHG$



10. $KLMJ \sim PQRN$



11. $PLMN \sim KGHJ$



5. Figure $ABCD$ is similar to figure $MNKL$. Write a proportion that contains BC and KL .

6. $\triangle DEF$ is similar to $\triangle STU$. Write a proportion that contains ST and SU .

11. $\triangle QRS$ maps to $\triangle XYZ$ with the transformation $(x, y) \rightarrow (6x, 6y)$. If $QS = 7$, what is the length of XZ ?

14. Which transformations will not produce similar figures? Select all that apply and explain your choices.

- A. $(x, y) \rightarrow (x - 4, y) \rightarrow (-x, -y) \rightarrow (8x, 8y)$
B. $(x, y) \rightarrow (x + 1, y + 1) \rightarrow (3x, 2y) \rightarrow (-x, -y)$
C. $(x, y) \rightarrow (5x, 5y) \rightarrow (x, -y) \rightarrow (x + 3, y - 3)$
D. $(x, y) \rightarrow (x, 2y) \rightarrow (x + 6, y - 2) \rightarrow (2x, y)$
E. $(x, y) \rightarrow (x, 3y) \rightarrow (2x, y) \rightarrow (x - 3, y - 2)$

15. The figures in the picture are similar to each other. Find the value of x .

