

6

CHAPTER TEST

Solve the proportion.

1. $\frac{6}{x} = \frac{9}{24}$

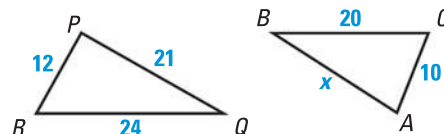
2. $\frac{5}{4} = \frac{y-5}{12}$

3. $\frac{3-2b}{4} = \frac{3}{2}$

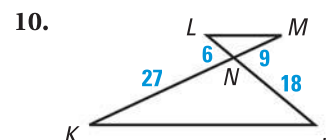
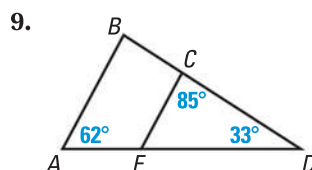
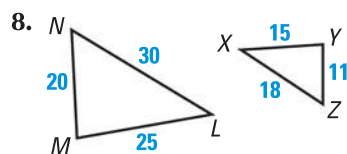
4. $\frac{7}{2a+8} = \frac{1}{a-1}$

In Exercises 5–7, use the diagram where $\triangle PQR \sim \triangle ABC$.

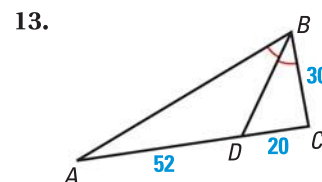
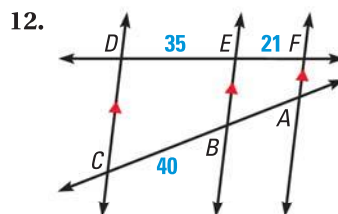
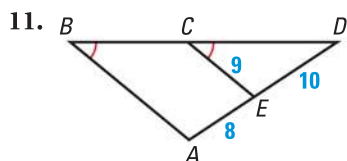
5. List all pairs of congruent angles.
6. Write the ratios of the corresponding sides in a statement of proportionality.
7. Find the value of x .



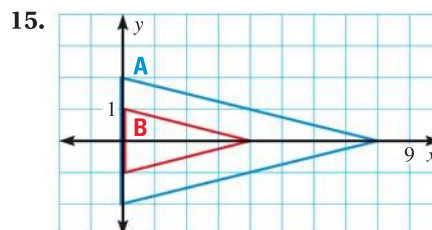
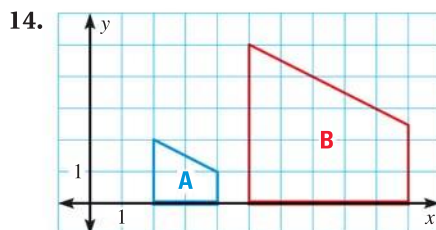
Determine whether the triangles are similar. If so, write a similarity statement and the postulate or theorem that justifies your answer.



In Exercises 11–13, find the length of \overline{AB} .



Determine whether the dilation from Figure A to Figure B is a *reduction* or an *enlargement*. Then find its scale factor.



16. **SCALE MODEL** You are making a scale model of your school's baseball diamond as part of an art project. The distance between two consecutive bases is 90 feet. If you use a scale factor of $\frac{1}{180}$ to build your model, what will be the distance around the bases on your model?

