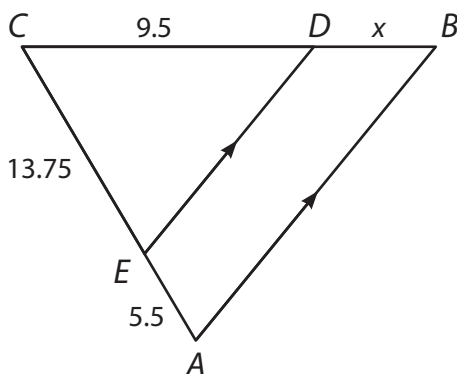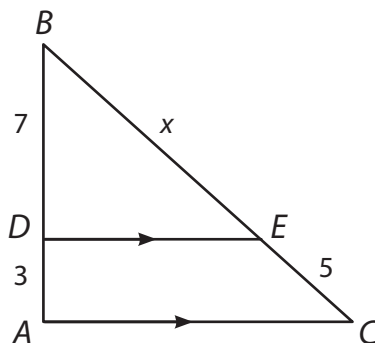## UNIT 5 • SIMILARITY, RIGHT TRIANGLE TRIGONOMETRY, AND PROOF
Lesson 4: Proving Similarity

Practice 5.4.2: Working with Ratio Segments

Use the Triangle Proportionality Theorem and the Triangle Angle Bisector Theorem to find the unknown lengths of the given segments.
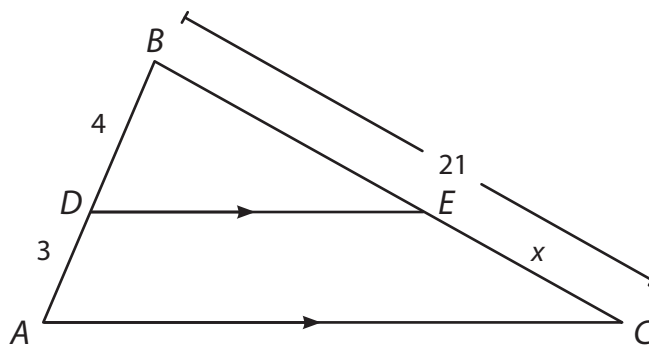
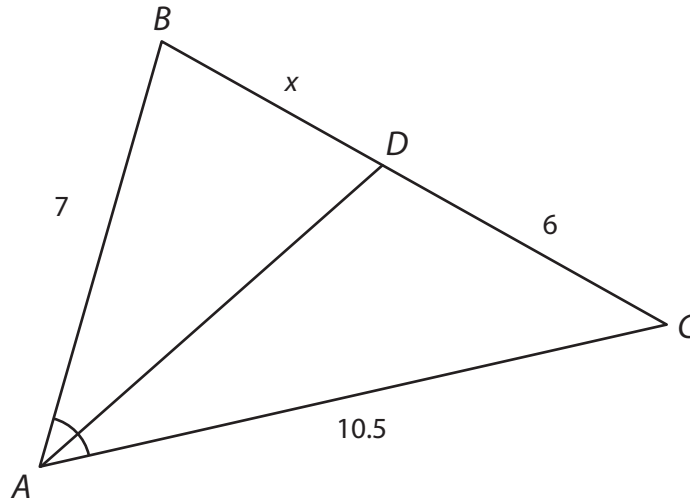1. $\overline{BD}$

2. $\overline{BE}$

3. $\overline{EC}$

4. $\overline{BD}$

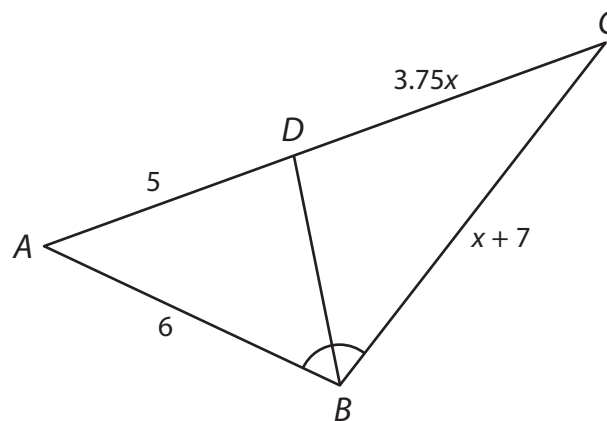5. $\overline{CD}$; $\overline{BD}$
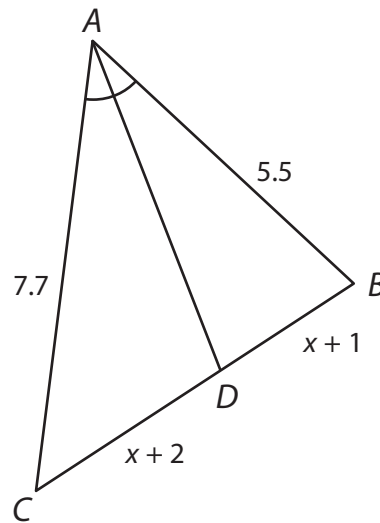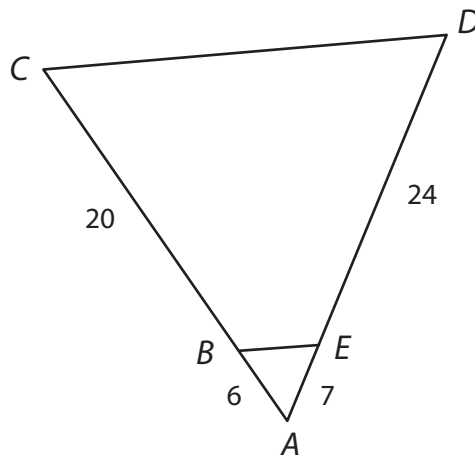

6. $\overline{CB}$; $\overline{CD}$

continued

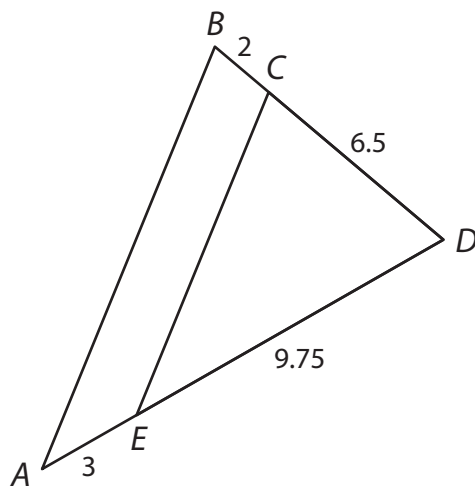**UNIT 5 • SIMILARITY, RIGHT TRIANGLE TRIGONOMETRY, AND PROOF**
Lesson 4: Proving Similarity

Use the Triangle Proportionality Theorem to determine if the given segments are parallel. Explain your reasoning.

7. Is $\overline{BE} \parallel \overline{CD}$?

8. Is $\overline{AB} \parallel \overline{EC}$?
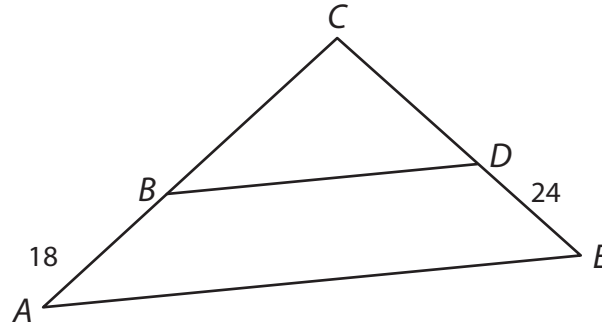

continued

9. If $AC = 60$ units and $EC = 36$ units, is $\overline{AE} \parallel \overline{BD}$?

10. If $AC = 24$ units and $AD = 30$ units, is $\overline{BE} \parallel \overline{CD}$?