Lesson 5.4 Practice: The Triangle Midsegment Theorem

School Launch · Geometry · Unit 5: Relationships Within Triangles · Worksheet A

Calculator allowed

Name _____ Date _____ Score _____ / 10

Show your work under each problem, one step per line, and check your answer. Word problems: name the unknown, write the equation, solve, and answer in a sentence with units.

1. The midsegment of a triangle is parallel to a side of length 46. How long is the midsegment? EASY

2. The midsegment of a triangle is parallel to a side of length 52. How long is the midsegment? EASY

3. The midsegment of a triangle is parallel to a side of length 50. How long is the midsegment? EASY

4. $\overline{DE}$ is a midsegment of $\triangle ABC$, parallel to $\overline{BC}$. $DE = 2x + 0$ and $BC = 7x - 12$. Find x and BC. MEDIUM

5. $\overline{DE}$ is a midsegment of $\triangle ABC$, parallel to $\overline{BC}$. $DE = 4x + 3$ and $BC = 7x + 15$. Find x and BC. MEDIUM

6. $\overline{DE}$ is a midsegment of $\triangle ABC$, parallel to $\overline{BC}$. $DE = x - 2$ and $BC = 3x - 10$. Find x and BC. MEDIUM

7. $\overline{DE}$ is a midsegment of $\triangle ABC$, parallel to $\overline{BC}$. $DE = 3x + 7$ and $BC = 8x - 2$. Find x and BC. MEDIUM

8. $\overline{DE}$ is a midsegment of $\triangle ABC$, parallel to $\overline{BC}$. $DE = 4x - 1$ and $BC = x + 68$. Find x and BC. HARD

9. $\overline{DE}$ is a midsegment of $\triangle ABC$, parallel to $\overline{BC}$. $DE = 2x + 2$ and $BC = 6x - 8$. Find x and BC. HARD

10. $\overline{DE}$ is a midsegment of $\triangle ABC$, parallel to $\overline{BC}$. $DE = x + 7$ and $BC = 6x - 2$. Find x and BC. HARD