Answer Key · Lesson 8.5: Proportions in Triangles

School Launch · Geometry · Unit 8 · Worksheet A · for the parent

Key

1. $EC = 33$

In $\triangle ABC$, $\overline{DE} \parallel \overline{BC}$ with D on $\overline{AB}$ and E on $\overline{AC}$. $AD = 3$, $DB = 11$, $AE = 9$. Find EC.

2. $EC = \frac{20}{11}$

In $\triangle ABC$, $\overline{DE} \parallel \overline{BC}$ with D on $\overline{AB}$ and E on $\overline{AC}$. $AD = 11$, $DB = 10$, $AE = 2$. Find EC.

3. $EC = \frac{21}{10}$

In $\triangle ABC$, $\overline{DE} \parallel \overline{BC}$ with D on $\overline{AB}$ and E on $\overline{AC}$. $AD = 10$, $DB = 7$, $AE = 3$. Find EC.

4. $EC = \frac{8}{11}$

1. $\frac{AD}{DB} = \frac{AE}{EC}$: $\frac{11}{2} = \frac{4}{EC}$
2. $EC = \frac{2 \cdot 4}{11} = \frac{8}{11}$

In $\triangle ABC$, $\overline{DE} \parallel \overline{BC}$ with D on $\overline{AB}$ and E on $\overline{AC}$. $AD = 11$, $DB = 2$, $AE = 4$. Find EC.

5. $EC = \frac{5}{2}$

1. $\frac{AD}{DB} = \frac{AE}{EC}$: $\frac{6}{5} = \frac{3}{EC}$
2. $EC = \frac{5 \cdot 3}{6} = \frac{5}{2}$

In $\triangle ABC$, $\overline{DE} \parallel \overline{BC}$ with D on $\overline{AB}$ and E on $\overline{AC}$. $AD = 6$, $DB = 5$, $AE = 3$. Find EC.

6. $EC = \frac{81}{11}$

1. $\frac{AD}{DB} = \frac{AE}{EC}$: $\frac{11}{9} = \frac{9}{EC}$
2. $EC = \frac{9 \cdot 9}{11} = \frac{81}{11}$

In $\triangle ABC$, $\overline{DE} \parallel \overline{BC}$ with D on $\overline{AB}$ and E on $\overline{AC}$. $AD = 11$, $DB = 9$, $AE = 9$. Find EC.

7. $EC = 1$

1. $\frac{AD}{DB} = \frac{AE}{EC}$: $\frac{10}{2} = \frac{5}{EC}$
2. $EC = \frac{2 \cdot 5}{10} = 1$

In $\triangle ABC$, $\overline{DE} \parallel \overline{BC}$ with D on $\overline{AB}$ and E on $\overline{AC}$. $AD = 10$, $DB = 2$, $AE = 5$. Find EC.

8. $EC = \frac{28}{3}$

1. $\frac{AD}{DB} = \frac{AE}{EC}$: $\frac{3}{4} = \frac{7}{EC}$
2. $EC = \frac{4 \cdot 7}{3} = \frac{28}{3}$

In $\triangle ABC$, $\overline{DE} \parallel \overline{BC}$ with D on $\overline{AB}$ and E on $\overline{AC}$. $AD = 3$, $DB = 4$, $AE = 7$. Find EC.

9. $EC = 7$

1. $\frac{AD}{DB} = \frac{AE}{EC}$: $\frac{2}{2} = \frac{7}{EC}$
2. $EC = \frac{2 \cdot 7}{2} = 7$

In $\triangle ABC$, $\overline{DE} \parallel \overline{BC}$ with D on $\overline{AB}$ and E on $\overline{AC}$. $AD = 2$, $DB = 2$, $AE = 7$. Find EC.

10. $EC = \frac{14}{5}$

1. $\frac{AD}{DB} = \frac{AE}{EC}$: $\frac{10}{4} = \frac{7}{EC}$
2. $EC = \frac{4 \cdot 7}{10} = \frac{14}{5}$

In $\triangle ABC$, $\overline{DE} \parallel \overline{BC}$ with D on $\overline{AB}$ and E on $\overline{AC}$. $AD = 10$, $DB = 4$, $AE = 7$. Find EC.