Answer Key · Lesson 9.3: Similar Right Triangles and the Geometric Mean

School Launch · Geometry · Unit 9 · Worksheet A · for the parent

Key

1. $3\sqrt{7}$

The altitude to the hypotenuse of a right triangle divides the hypotenuse into segments of 9 and 7. Find the altitude (simplest radical form).

2. $\sqrt{33}$

The altitude to the hypotenuse of a right triangle divides the hypotenuse into segments of 11 and 3. Find the altitude (simplest radical form).

3. $3\sqrt{2}$

The altitude to the hypotenuse of a right triangle divides the hypotenuse into segments of 3 and 6. Find the altitude (simplest radical form).

4. $4\sqrt{2}$

1. Altitude $= \sqrt{8 \cdot 4} = \sqrt{32}$
2. Simplify: $4\sqrt{2}$

The altitude to the hypotenuse of a right triangle divides the hypotenuse into segments of 8 and 4. Find the altitude (simplest radical form).

5. $3\sqrt{5}$

1. Altitude $= \sqrt{5 \cdot 9} = \sqrt{45}$
2. Simplify: $3\sqrt{5}$

The altitude to the hypotenuse of a right triangle divides the hypotenuse into segments of 5 and 9. Find the altitude (simplest radical form).

6. $6\sqrt{2}$

1. Altitude $= \sqrt{12 \cdot 6} = \sqrt{72}$
2. Simplify: $6\sqrt{2}$

The altitude to the hypotenuse of a right triangle divides the hypotenuse into segments of 12 and 6. Find the altitude (simplest radical form).

7. $\sqrt{110}$

1. Altitude $= \sqrt{11 \cdot 10} = \sqrt{110}$
2. Simplify: $\sqrt{110}$

The altitude to the hypotenuse of a right triangle divides the hypotenuse into segments of 11 and 10. Find the altitude (simplest radical form).

8. $3\sqrt{2}$

1. Altitude $= \sqrt{2 \cdot 9} = \sqrt{18}$
2. Simplify: $3\sqrt{2}$

The altitude to the hypotenuse of a right triangle divides the hypotenuse into segments of 2 and 9. Find the altitude (simplest radical form).

9. $\sqrt{55}$

1. Altitude $= \sqrt{5 \cdot 11} = \sqrt{55}$
2. Simplify: $\sqrt{55}$

The altitude to the hypotenuse of a right triangle divides the hypotenuse into segments of 5 and 11. Find the altitude (simplest radical form).

10. $2\sqrt{15}$

1. Altitude $= \sqrt{10 \cdot 6} = \sqrt{60}$
2. Simplify: $2\sqrt{15}$

The altitude to the hypotenuse of a right triangle divides the hypotenuse into segments of 10 and 6. Find the altitude (simplest radical form).