Answer Key · Lesson 8.3: Proving Triangles Similar: AA

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

Key

1. 80 ft

Henry is 6 ft tall and casts a 3 ft shadow. At the same moment a tree casts a 40 ft shadow. How tall is the tree?

2. $\frac{57}{2}$ ft ≈ 28.5 ft

Esther is 6 ft tall and casts a 12 ft shadow. At the same moment a tree casts a 57 ft shadow. How tall is the tree?

3. $\frac{75}{2}$ ft ≈ 37.5 ft

Grace is 6 ft tall and casts a 4 ft shadow. At the same moment a tree casts a 25 ft shadow. How tall is the tree?

4. $\frac{200}{7}$ ft ≈ 28.6 ft

1. The sun's rays make similar right triangles (AA).
2. $\frac{4}{7} = \frac{t}{50}$

Abigail is 4 ft tall and casts a 7 ft shadow. At the same moment a tree casts a 50 ft shadow. How tall is the tree?

5. $\frac{95}{6}$ ft ≈ 15.8 ft

1. The sun's rays make similar right triangles (AA).
2. $\frac{5}{12} = \frac{t}{38}$

Caleb is 5 ft tall and casts a 12 ft shadow. At the same moment a tree casts a 38 ft shadow. How tall is the tree?

6. $\frac{33}{2}$ ft ≈ 16.5 ft

1. The sun's rays make similar right triangles (AA).
2. $\frac{6}{12} = \frac{t}{33}$

Esther is 6 ft tall and casts a 12 ft shadow. At the same moment a tree casts a 33 ft shadow. How tall is the tree?

7. $\frac{301}{9}$ ft ≈ 33.4 ft

1. The sun's rays make similar right triangles (AA).
2. $\frac{7}{9} = \frac{t}{43}$

Abigail is 7 ft tall and casts a 9 ft shadow. At the same moment a tree casts a 43 ft shadow. How tall is the tree?

8. $\frac{208}{11}$ ft ≈ 18.9 ft

1. The sun's rays make similar right triangles (AA).
2. $\frac{4}{11} = \frac{t}{52}$

Miriam is 4 ft tall and casts a 11 ft shadow. At the same moment a tree casts a 52 ft shadow. How tall is the tree?

9. $\frac{161}{9}$ ft ≈ 17.9 ft

1. The sun's rays make similar right triangles (AA).
2. $\frac{7}{9} = \frac{t}{23}$

Esther is 7 ft tall and casts a 9 ft shadow. At the same moment a tree casts a 23 ft shadow. How tall is the tree?

10. 60 ft

1. The sun's rays make similar right triangles (AA).
2. $\frac{5}{4} = \frac{t}{48}$

Peter is 5 ft tall and casts a 4 ft shadow. At the same moment a tree casts a 48 ft shadow. How tall is the tree?