ZiloAcademy

✨ Grade 9 Maths — Similarity ✨

Name: Demo **Date:** 26/11/2026

1. A 1.5 m post casts a shadow 4 m long. At the same time, a tree casts a shadow 29 m long. Using similar triangles, how tall is the tree (in m)? (Round to 2 decimal places if needed.)

2. A 1.8 m post casts a shadow 3 m long. At the same time, a tree casts a shadow 48 m long. Using similar triangles, how tall is the tree (in m)? (Round to 2 decimal places if needed.)

3. Two similar rectangles have matching sides of 3 cm and 9 cm. What is the scale factor from the smaller to the larger?

4. A 1.5 m post casts a shadow 8 m long. At the same time, a tree casts a shadow 32 m long. Using similar triangles, how tall is the tree (in m)? (Round to 2 decimal places if needed.)

5. A 1.8 m post casts a shadow 2 m long. At the same time, a tree casts a shadow 40 m long. Using similar triangles, how tall is the tree (in m)? (Round to 2 decimal places if needed.)

6. A 1.8 m post casts a shadow 8 m long. At the same time, a tree casts a shadow 9 m long. Using similar triangles, how tall is the tree (in m)? (Round to 2 decimal places if needed.)

7. Two similar rectangles have matching sides of 17 cm and 102 cm. What is the scale factor from the smaller to the larger?

8. A 1.8 m post casts a shadow 9 m long. At the same time, a tree casts a shadow 55 m long. Using similar triangles, how tall is the tree (in m)? (Round to 2 decimal places if needed.)

9. Two similar rectangles have matching sides of 17 cm and 85 cm. What is the scale factor from the smaller to the larger?

10. Two similar triangles have a scale factor of 3.5. A side on the smaller triangle is 26 cm. What is the matching side on the larger triangle (in cm)?