Similar Triangles; Indirect Measurement

Independent Set 6.07

Name_____
Date_____
Period_____

Six questions, on your own, in silence. Show the step that does the work.

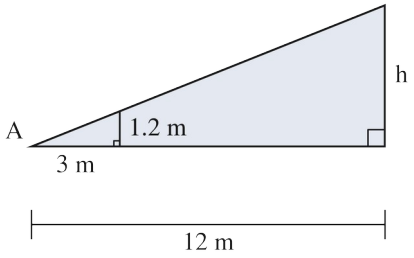
1. Are triangles with sides 4, 10, 12 and 6, 15, 20 similar? Show the three ratios.

2. Triangle PQR is similar to triangle XYZ. PQ is 8, QR is 10 and PR is 13, and XY is 20. Find YZ and XZ.

3. A triangle has sides 15, 25 and 30. A similar triangle's longest side is 6. Find its other two sides.

4. A 1.5-m child casts a 2-m shadow. At the same moment a tree casts a 14-m shadow. How tall is the tree?

5. The two right triangles are similar and share corner A. The small one runs 3 m along the ground from A and stands 1.2 m high. The big one runs 12 m along the ground from A. How high is it?



6. Which is similar to a triangle with sides 8, 10 and 14: one with sides 10, 12, 16, or one with sides 12, 15, 21? Show why.