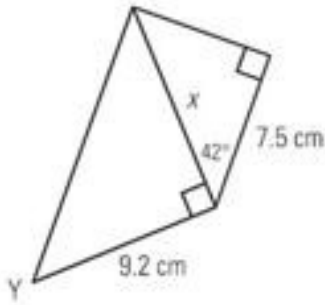


Review - Triangles

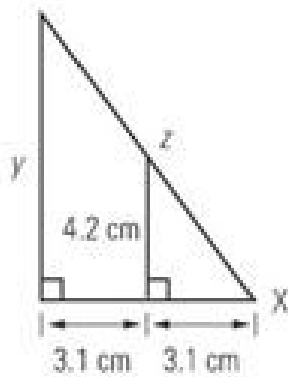
Show all work. Solve using proportional reasoning. Round all lengths to the nearest hundredth and angles to the nearest degree!

1. Solve for the variables shown in the following diagrams.

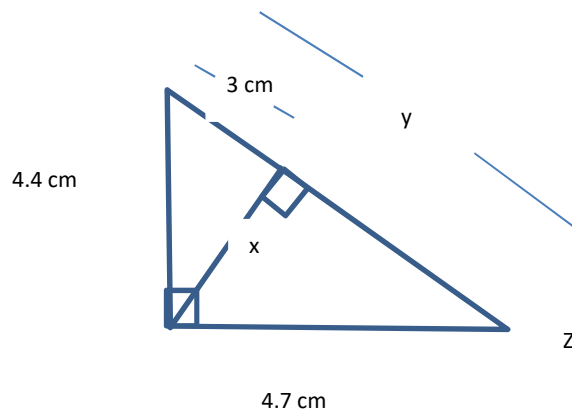
a.



b.



c.

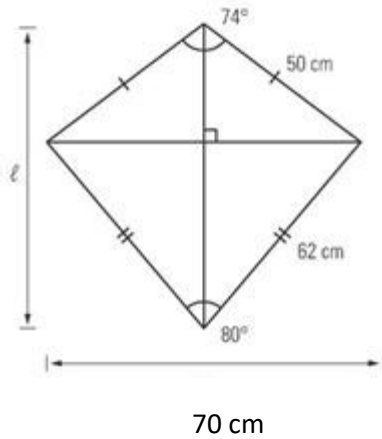


2. Bernhardt and Julia are observing an eagle's nest in a tree. Julia is 75m from the base of a tree and sees it at an angle of elevation of 42 degrees.

a. How high up the tree is the nest?

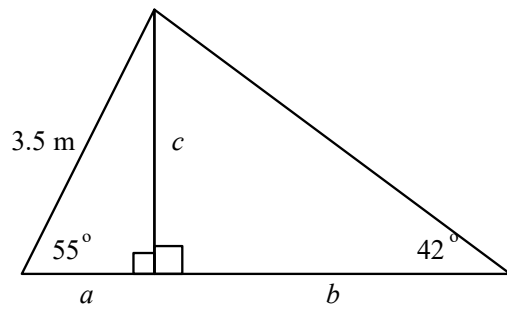
b. Bernhardt is standing 30m behind Julia. At what angle of elevation does he see the nest?

3. A kite has the dimensions indicated. What is the length of the kite? **Solve using trigonometry! not Pythagoras.**



4. Sam is standing on the top of a building that is 135m tall. The angle of elevation to the top of the building next door is 71degrees. The angle of depression to the base of the building is 77 degrees. The buildings are 31m apart. How tall is the other building?

6. The sail of a sailboat is made out of two triangles of fabric. What area of fabric is needed to make the sail?



7. A landscape designer is laying tile for an outdoor patio. How many square metres of tile will she need?

