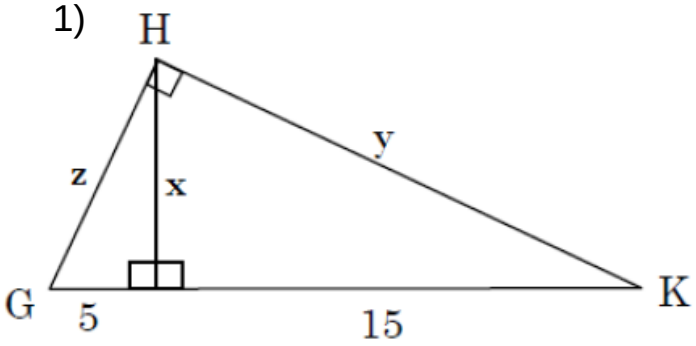
Name:_____ **Date:**_____

Geometry Unit 5 Day 6 **Geometric Mean of similar right triangles**

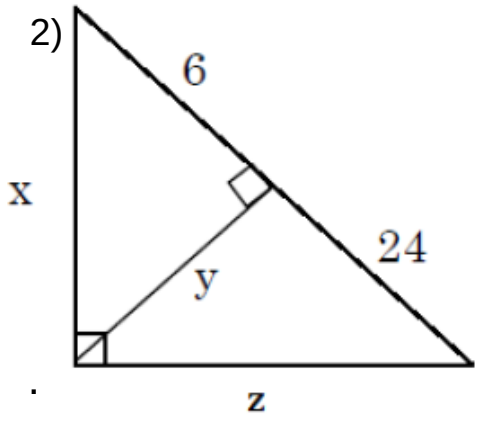
Show work to support your answers!!

Solve for the variables x, y, and z in each triangle.

1)

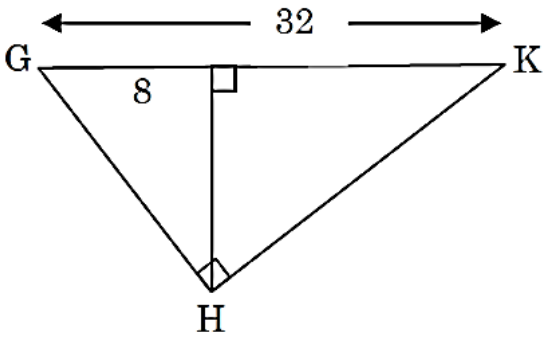


2)

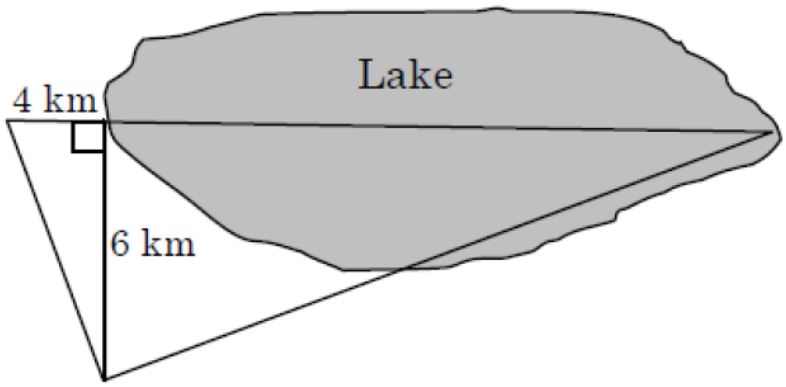


.

3) Determine the lengths of GH and HK.



4) Determine the distance across the lake?



5) Kirstie is testing values that would make triangle KLM a right triangle when $\overline{LN}$ is an altitude, and $KM = 16$, as shown below.

Which lengths would make triangle KLM a right triangle?

(1) $LM = 13$ and $KN = 6$

(2) $LM = 12$ and $NM = 9$

(3) $KL = 11$ and $KN = 7$

(4) $LN = 8$ and $NM = 10$