

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Geometry Unit 5 Day 6

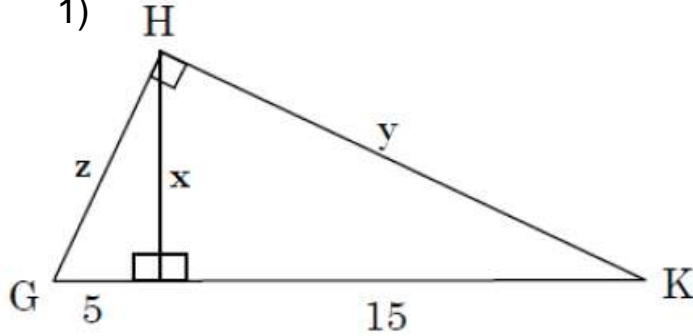
Geometric Mean of similar right triangles

Show work to support your answers!!

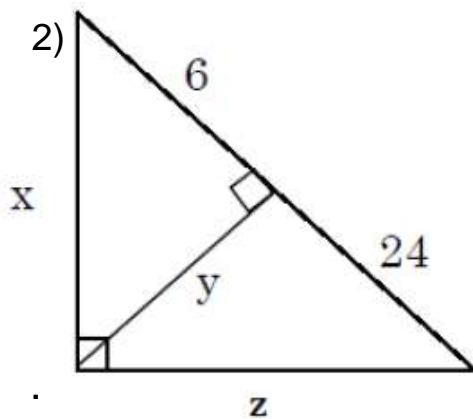
Solve for the variables  $x$ ,  $y$ , and  $z$  in each triangle.



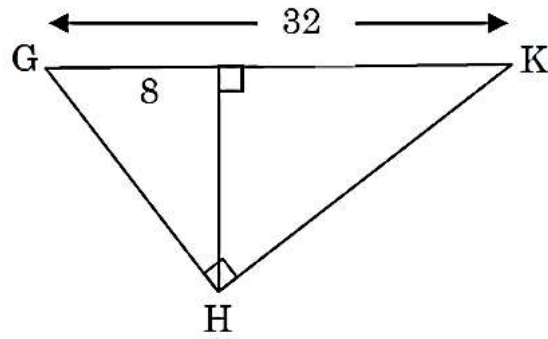
1)



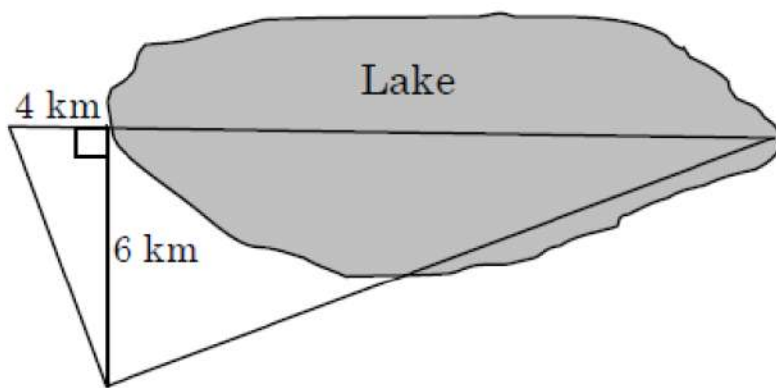
2)



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  $KN = 6$       (3)  $KL = 11$  and  $KN = 7$   
 (2)  $LM = 12$  and  $NM = 9$       (4)  $LN = 8$  and  $NM = 10$

