(1)[**5 points**] Find all remaining sides and angles in the following triangle (round final answers to one decimal):

$c = 12$

A

B

$a = 9$
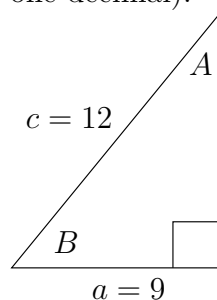
(2)[**5 points**] In the following triangle $A = 22°$. Find the remaining sides and angles (round final answers to one decimal):

A

$b = 3$

$c = 9$

C

a

B
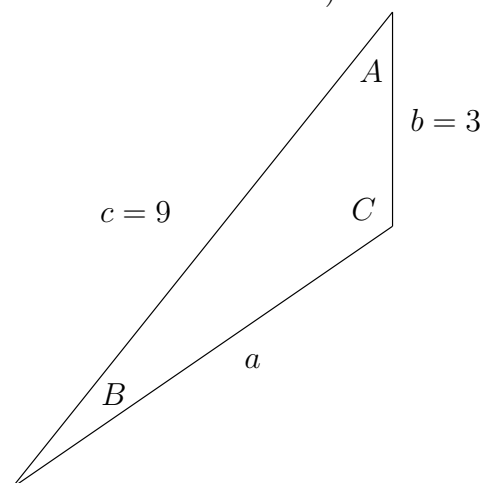
(3)[5 points] Observers in towns located at A and B measure the angle of elevation to the peak of a 12,000 foot mountain to be 28° and 46°, respectively. Find the distance between the towns assuming the towns and the mountain peak lie in the same vertical plane.