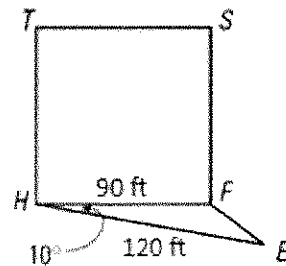
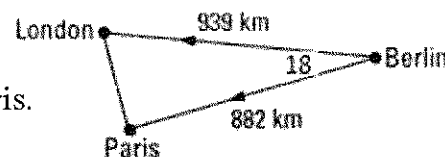


SHOW ALL WORK FOR FULL CREDIT!!

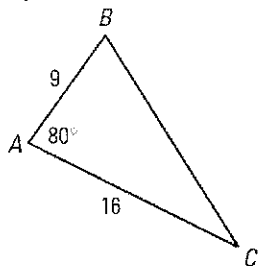
- 1.) A baseball infield is determined by a square with sides 90 ft long. In the diagram, home plate is H and first base is F . Suppose the first baseman ran in a straight line from F to catch a pop-up at B , 120 ft from home plate. If the measure of $\angle FHB$ is 10° , how far did the first baseman run?



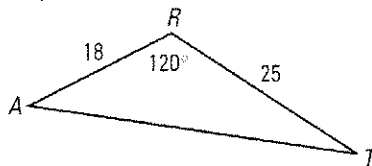
- 2.) Two airplanes leave Berlin, one heading straight for London and the other straight for Paris. The angle formed is 18 degrees. Use the Law of Cosines to estimate the distance from London to Paris.



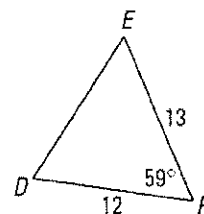
- 3.) Find BC



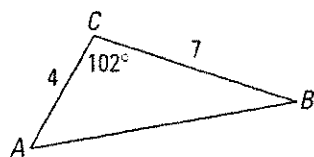
- 4.) Find TA



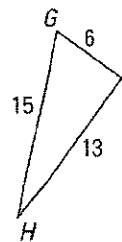
- 5.) Find DE



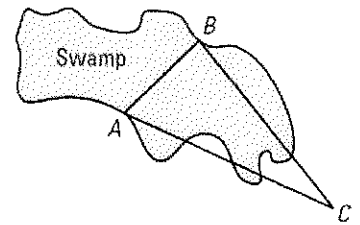
- 6.) Find AB



- 7.) Find $m\angle G$

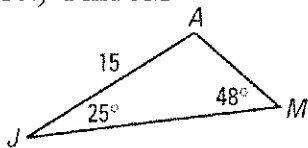


- 8.) Some students in Geometry are assigned the task of measuring the distance between two trees separated by a swamp. The students determine that the angle formed by tree A , a dry point C , and tree B is 27° . They also know that $m\angle ABC$ is 85° . If AC is 150 ft, how far apart are the trees?

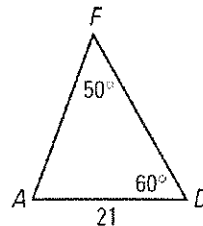


- 9.) Two lookout towers, L and M , are 50 kilometers apart. The ranger in Tower L sees a fire at point C such that $m\angle CLM = 40^\circ$. The ranger in Tower M sees the same fire such that $m\angle CML = 65^\circ$. How far is the fire from Tower L ?

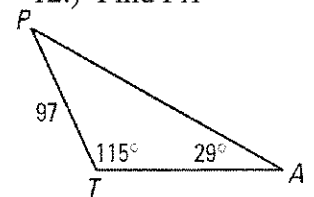
- 10.) Find JM



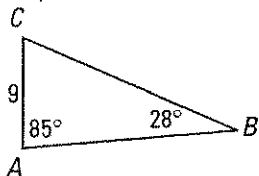
- 11.) Find DF



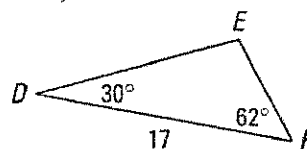
- 12.) Find PA



- 13.) Find BC



- 14.) Find DE



- 15.) Find NO

