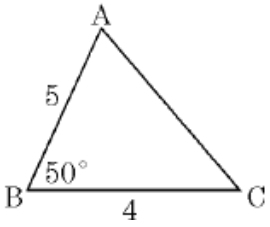
Name:_____ Date:_____

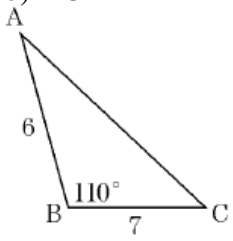
Pre-Calculus 11: Ch2 Trigonometry HW Lesson 7 Cosine Law

1. Given each triangle, find the value of the indicated side or angle.

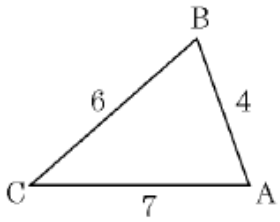
a) AC =



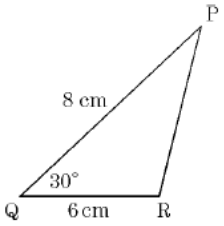
b) AC =



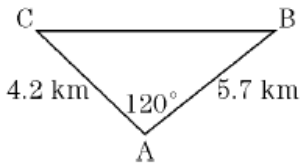
c) $\angle B$ =



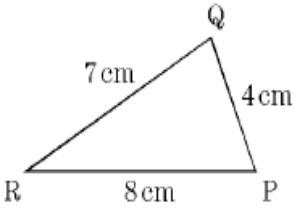
d) PR =



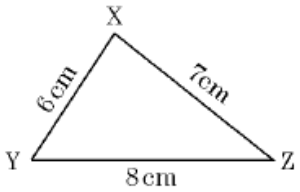
e) $\angle B =$



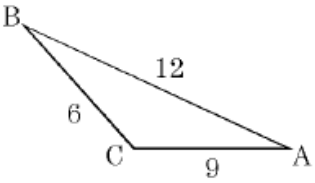
f) $\angle Q =$

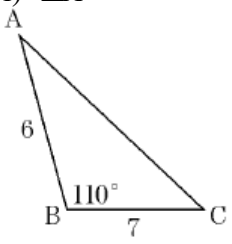
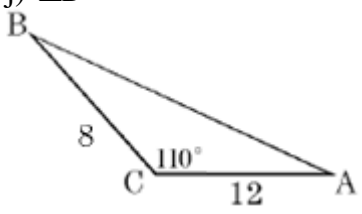


g) $\angle z =$



h) (Obtuse) $\angle C =$

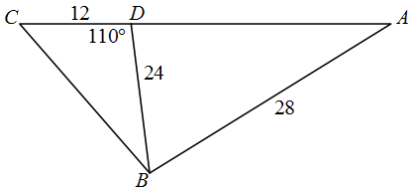


i) $\angle A =$ AC =	j) $\angle B =$ BA =
	

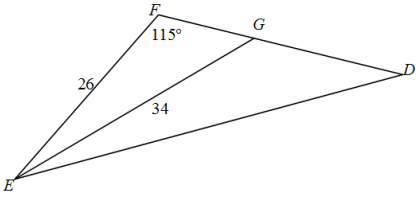
2. Two hikers start out from the same place at 9:00am. The first hiker walks at 4km/h and the second hiker walks at 5km/h. If the angle between the two hikers is $70°$ then, to 3 decimal places, how far apart are the hikers at 11:30am?

3. Triangle $\triangle ABC$ has sides of length 7, 12, and 15cm. To the nearest degree, what is the measure of the largest angle of the triangle?

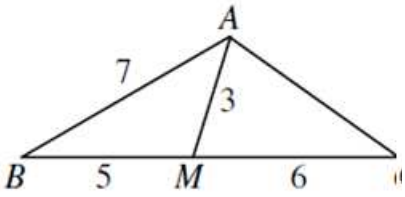
4. Find the measure of angle "A"



5. Given that line GE bisects angle "E", find the length of ED



6. In ΔABC, M is a point on BC such that $BM = 5$ and $MC = 6$. If $AM = 3$ and $AB = 7$, determine the exact value of AC.



7. In the diagram, $AC = 2x$, $BC = 2x + 1$ and $\angle ACB = 30°$. If the area of ΔABC is 18, what is the value of x?