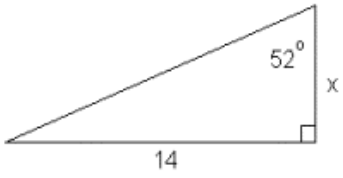
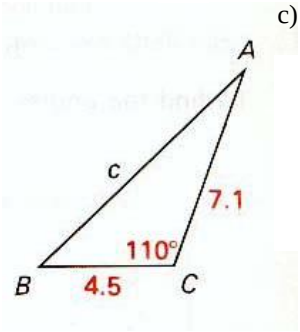
Foundations of Math 11
Review – Primary Trig Ratios & Law of Sines/Cosines

1. Find the **unknown side** in each of the following…

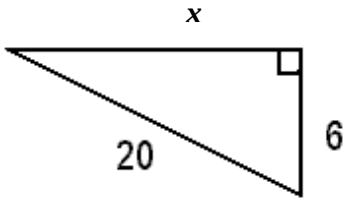
a)



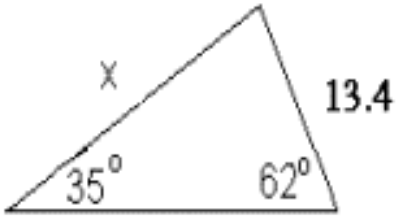
b)



c)

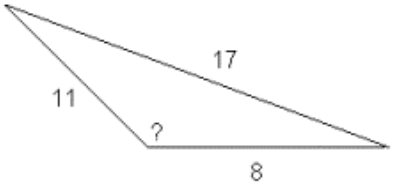


d)

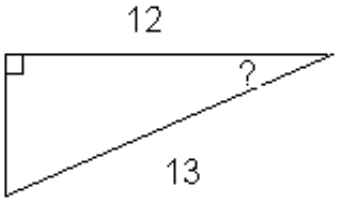


2. Find the **unknown angle** in each of the following…

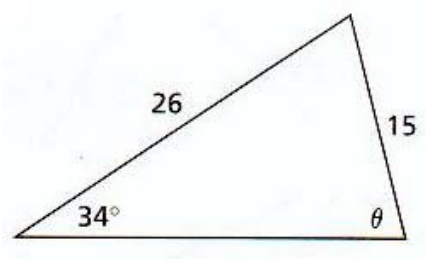
a)



b)

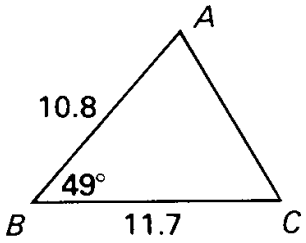


c)

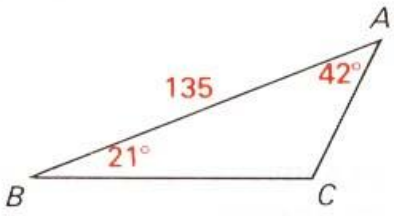


3. **SOLVE (find ALL unknown sides and angles)** each of the following…

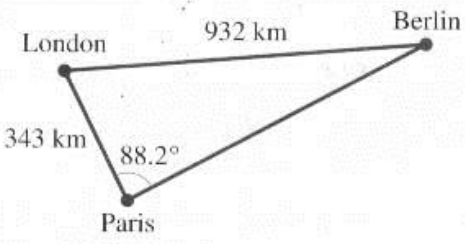
a)



b)



4. Find the **distance from Paris to Berlin** in the following diagram…



5. A MVHS hockey game is to be decided by a penalty shot. The puck is shot from a point 10 m from one post and 12 m from the other post. The posts are 2.5 m apart. **Within what angle** must the puck be shot for it to go between the posts?

6. Moncton, Shediac and Sackville form the vertices of a triangle on a map. If Moncton and Shediac are 32 km apart, and the angles at Moncton and Shediac are 58° and 72° respectively, **how far is Moncton from Sackville**?

7. A forest ranger in a tower 128.0 m high sights two fires in the same line of sight with angles of depression 42° and 61° . **How far apart are the fires**?

SOLUTIONS…

1. a) 10.9 b) 9.62 c) 19.1 d) 20.63
2. a) 126° b) 23° c) 76°
3. a) b = 9.37; $\angle A = 71°$; $\angle C = 60°$
   b) $\angle C = 117°$; a = 101.4; b = 54.3
4. 877.3 km
5. 7.9°
6. 39.7 km
7. 71.21 m