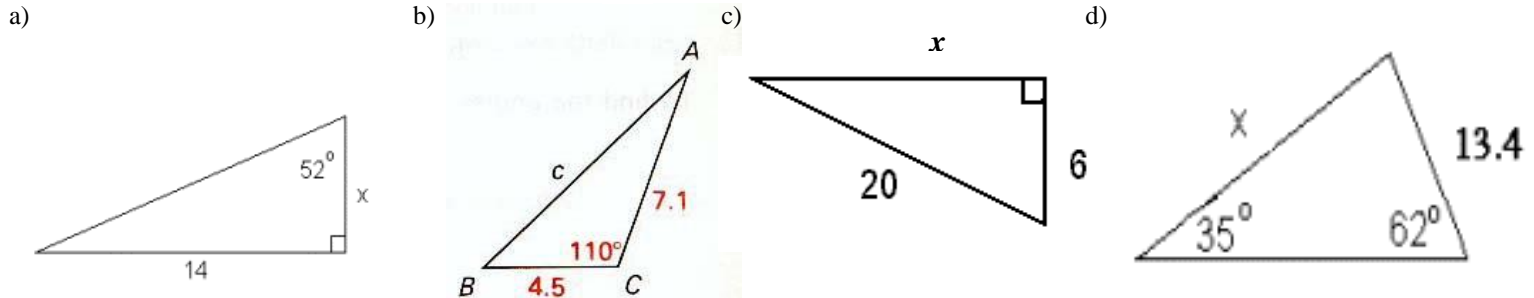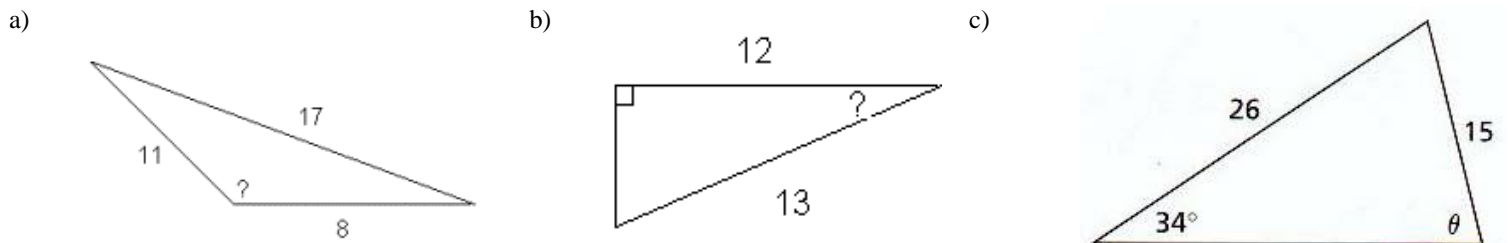**INSTRUCTIONS:** <u>ALL</u> work must be shown for each question on looseleaf. Staple this sheet to the front of your work.
Make sure you label unknown sides and angles properly. Put a box around your solutions.
You <u>must</u> include a detailed sketch (labels and measurements) for each word problem. You can use your
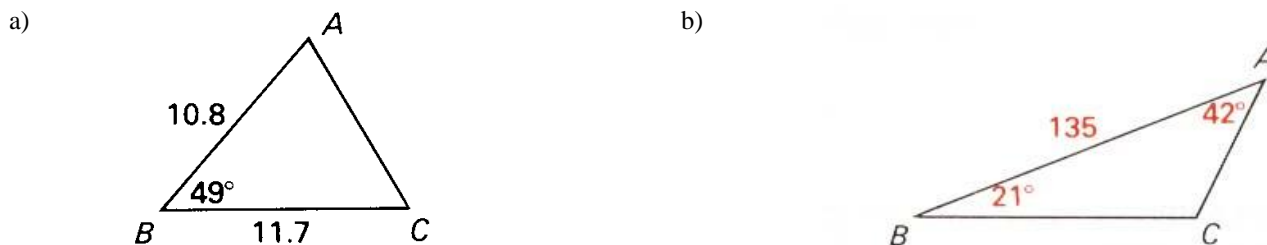books/notes but it is to be done individually!

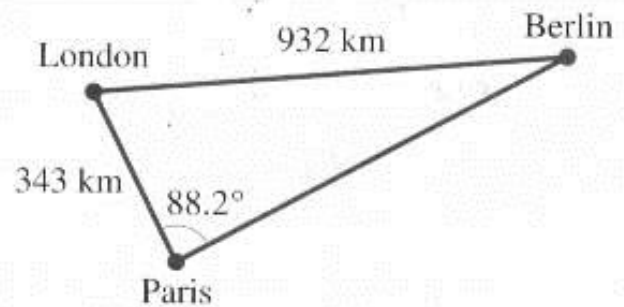1. Find the **unknown side** in each of the following…   [8]

a)   b)   c)   d)

2. Find the **unknown angle** in each of the following…   [6]

a)   b)   c)

3. **<u>SOLVE</u> (find <u>ALL</u> unknown sides and angles)** each of the following…   [10]

a)   b)

4. Find the **distance from Paris to Berlin** in the following diagram…   [5]

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?   [3]

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**?   [4]

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?   [4]