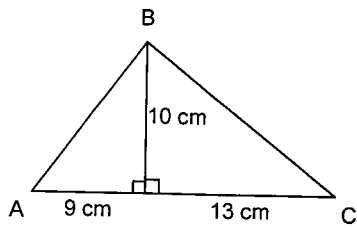


Math 10C – Trigonometry

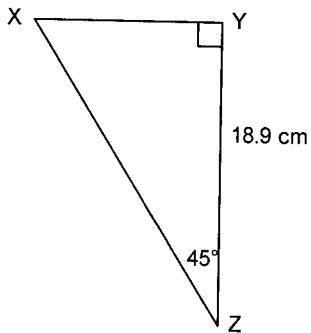
Name:

Show all your work for full marks.

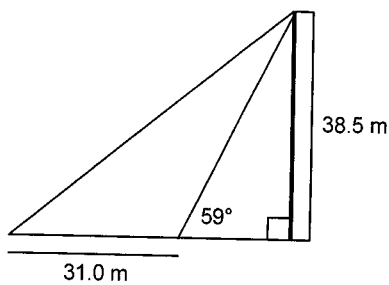
1. Calculate the measure of $\angle ABC$ to the nearest degree. (3 marks)



2. Solve $\triangle XYZ$. Give the measures to the nearest tenth for a side and nearest degree for an angle. (3 marks)



3. A Girl Guide measured the angle of elevation of the top of a monument as 59° . The height of the monument is 38.5 m. She then walked 31.0 m due west from the point where she measured the angle of elevation. Determine the angle of elevation of the monument from her new location to the nearest degree. (3 marks)



4. Two office towers are 50 m apart. From the top of the shorter tower, the angle of depression to the base of the taller tower is 35° . The angle of elevation to the top of the taller tower is 25° . Determine the height of each tower to the tenth of metre. (4 marks)
5. A rectangle has dimensions 5.5 cm by 2.8 cm. Determine the measures of the angles at the point where the diagonals intersect. (3 marks)
6. A fire truck has an aerial ladder that extends 30.5 m measured from the ground. The angle of inclination of the ladder is 77° . To the nearest tenth of a metre, how far up the wall of an apartment building can the ladder reach? (3 marks)