**8.5 Compound Trigonometry Applications**

From the top of a 200 meters high building, the angle of depression to the bottom of a second building is 20 degrees. From the same point, the angle of elevation to the top of the second building is 10 degrees. Calculate the height of the second building.

The lengths of side AB and side BC of a scalene triangle ABC are 12 cm and 8 cm respectively. The size of angle C is 59o. Find the length of side AC.

**Bearing –**

A ship leaves at noon and heads due west at 20 knots per hour. At 2 pm the ship changes course to N54°W. Find the ship’s bearing and distance from the port of departure at 3 pm