1. Solve right triangle *ABC*, if b = 14.26 ft and c = 71.32 ft. (Assume $C = 90^{\circ}$.)

2. The angle of depression from the top of a building to a point on the ground is 32°. How far is the point on the ground from the top of the building if the building is 252 m high?

3. From a window 50.0 ft above the street, the angle of elevation to the top of the building across the street is 60.0° and the angle of depression to the base of this building is 10.0° . Find the height of the building across the street.

4. Radar stations A and B are on an east-west line, 8.6 km apart. Station A detects a plane at C, on a bearing of 53°. Station B simultaneously detects the same plane, on a bearing of 323°. Find the distance from B to C.

5. You need to find the height of a building. From a given point on the ground, you find that the angle of elevation to the top of the building is 74.2°. You then walk back 35 ft. From the second point, the angle of elevation to the top of the building is 51.8°. Find the height of the building.