Static Forces

1. A chandelier is hung in a room and is suspended by two wires. One wire is attached to the ceiling to the left of the chandelier and makes an angle of 50° below the horizontal ceiling, while the second wire is attached to the wall on the right side of the chandelier and is parallel to the ground. If the chandelier has a mass of 45 kg, find the tension in each wire.
2. In the next room, a chandelier is suspended in a similar format except the wire attached to the ceiling makes an angle of 40° below the horizon, and the tension in the wire attached to the wall is 70 N. Find the mass of the chandelier and the tension in the cable attached to the ceiling.