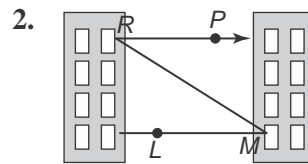
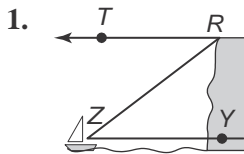


8-5 Practice

Angles of Elevation and Depression

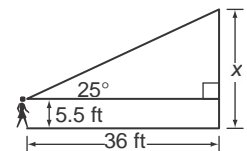
Name the angle of depression or angle of elevation in each figure.



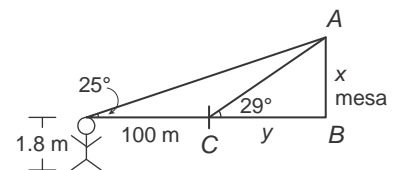
3. WATER TOWERS A student can see a water tower from the closest point of the soccer field at San Lobos High School. The edge of the soccer field is about 110 feet from the water tower and the water tower stands at a height of 32.5 feet. What is the angle of elevation if the eye level of the student viewing the tower from the edge of the soccer field is 6 feet above the ground? Round to the nearest tenth.

4. CONSTRUCTION A roofer props a ladder against a wall so that the top of the ladder reaches a 30-foot roof that needs repair. If the angle of elevation from the bottom of the ladder to the roof is 55° , how far is the ladder from the base of the wall? Round your answer to the nearest foot.

5. TOWN ORDINANCES The town of Belmont restricts the height of flagpoles to 25 feet on any property. Lindsay wants to determine whether her school is in compliance with the regulation. Her eye level is 5.5 feet from the ground and she stands 36 feet from the flagpole. If the angle of elevation is about 25° , what is the height of the flagpole to the nearest tenth?



6. GEOGRAPHY Stephan is standing on the ground by a mesa in the Painted Desert. Stephan is 1.8 meters tall and sights the top of the mesa at 29° . Stephan steps back 100 meters and sights the top at 25° . How tall is the mesa?



7. INDIRECT MEASUREMENT Mr. Dominguez is standing on a 40-foot ocean bluff near his home. He can see his two dogs on the beach below. If his line of sight is 6 feet above the ground and the angles of depression to his dogs are 34° and 48° , how far apart are the dogs to the nearest foot?

