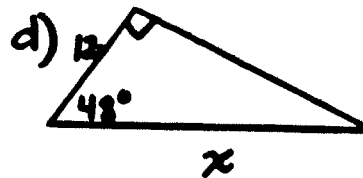
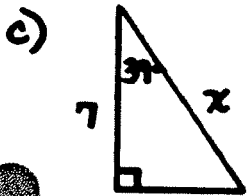
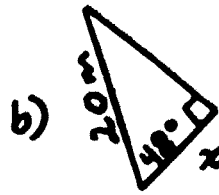


I Find the value of x



II Problem Solving. * Draw a diagram to help solve.

1) A 10.0 m ladder leans against a vertical wall at an angle of 73°

a) Find the height the ladder reaches up the wall

b) Find the distance from the foot of the ladder to the wall

2) A wheelchair ramp is 8.2 m long and rises 0.75 m. What is the angle of elevation of the ramp, to the nearest degree?

3) A kite has a string 150 m long. If the string makes an angle of 41° with the ground, find the height of the kite.

4) A mountain road rises 1 m for every 5 m along the road. Find the angle of inclination of the road.

* Draw a pic

1.

From a helicopter the angle of depression of a stranded car is 22° . The altimeter shows that the helicopter is 1300 m above the ground. Assuming that the ground is flat in that location, determine how far the car is from a point directly below the helicopter.

2.

Jon is standing 150 m from the base of a cliff. He determines that the angle of elevation to the top of the cliff is 48° . Find the height of the cliff.

3.

From the bow of a ship 50 m long heading directly north, a lighthouse is sighted directly west. At the same time the lighthouse is sighted at an 80° angle from the stern of the ship. Find the distance from the bow to the lighthouse.

