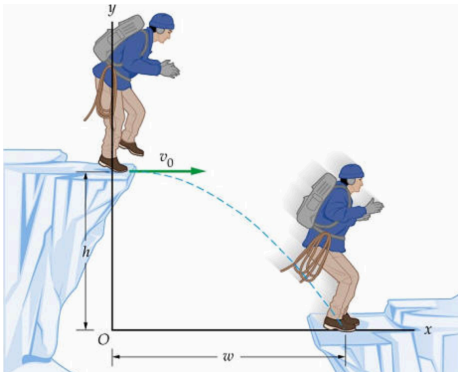
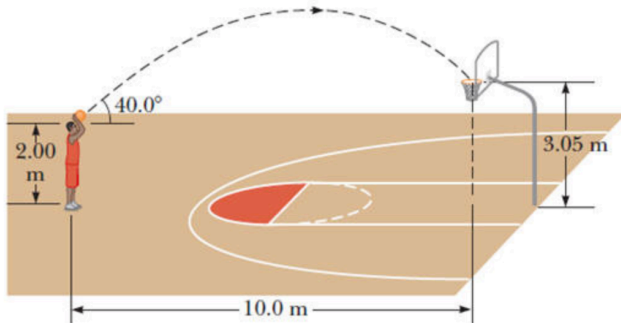


Homework: Textbook pg43. #3, 4, 7, 9

Sample problem: A mountain climber encounters a crevasse in an ice field. The opposite side of the crevasse is 2.75 m lower and is separated horizontally by a distance of 12 m. To cross the crevasse, the climber gets a running start and takes off horizontally. Will the climber make it safely cross? Would he make it with a take-off angle of 30° ? What angle would require the least take-off speed?



Sample problem: A basketball player is standing on the floor 10.0 m from the basket, as shown. The height of the basket is 3.05 m, and he shoots the ball at a 40.0° angle with the horizontal from a height of 2.00 m. At what speed must the player throw the basketball so that the ball goes through the hoop without striking the backboard?



Sample problem: A car is parked on a cliff overlooking the ocean on an incline that makes an angle of 37° below the horizontal. The negligent driver leaves the car in neutral, and the emergency brakes are defective. The car rolls from rest down the incline with a constant acceleration of 4 m/s^2 for a distance of 50 m to the edge of the cliff. If the cliff is 30 m above the ocean, find the car's position relative to the base of the cliff when the car lands in the ocean.

