Homework # 1

1- A tennis player serves the ball at a height h 5 2.5 m with an initial velocity of **v0** at an angle of 5° with the horizontal. Determine the range of v0 for which the ball will land in the service area that extends to 6.4 m beyond the net.



2- A boy is flying a kite that is 60 m high with 75 m of cord out. The kite moves horizontally from this position at a constant 6 km/h that is directly away from the boy. Ignoring the sag in the cord, determine how fast the cord is being let out at this instant and how fast this rate is increasing.

