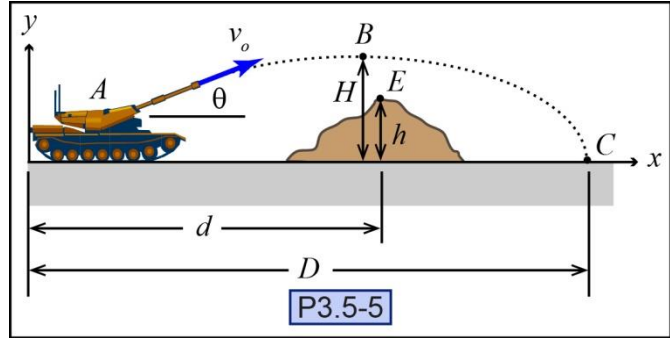


P3.5-5) The tank shown fires a shell with an initial velocity of 1500 ft/s at an angle of 30 degrees. Neglecting the size of the tank and air resistance, determine the range D , maximum attained height H and the total time for the shell to reach its target at point C .



Given:

Find:

Solution:

Range equation.

Use the range equation to find the time it takes to get to point C as a function of the range (D).

$t_c =$ _____

Flight time.

Use the height equations of the projectile to solve for the range, time of flight, and the maximum height.

$D =$ _____

$t_c =$ _____

$H =$ _____