

3 A cannon at the top of a 30 m high hill fires a shell at an angle of 30.0° upwards from the horizontal with a speed of 50.0 m s^{-1} . Taking air resistance to be negligible, what is the angle to the vertical at which the shell lands on ground level?

A 7.93°

B 38.8°

C 51.2°

D 82.1°