Name-code: _____

Part B: Optional Problems

9. Consider a string with length L. There is a fixed peg P at a distance d from the origin of the string. When the initially stationary ball is released with the string horizontal it will swing along the dashed trajectory.
(i) What is the speed when it reaches its lowest point?
(ii) What is the speed when it reaches its highest point after the string catches on the peg?
(iii) What is the minimal value of d that allows the ball to swing completely around the fixed peg?