

HW#6

The graph above represents the potential energy U as a function of position r for a particle of mass m . If the particle is released from rest at position r_0 , what will its speed be at position $3r_0$?

a. $\sqrt{\frac{8U_0}{m}}$

b. $\sqrt{\frac{4U_0}{m}}$

c. $\sqrt{\frac{2U_0}{m}}$

d. $\sqrt{\frac{6U_0}{m}}$

e. The particle will never reach position $3r_0$.

