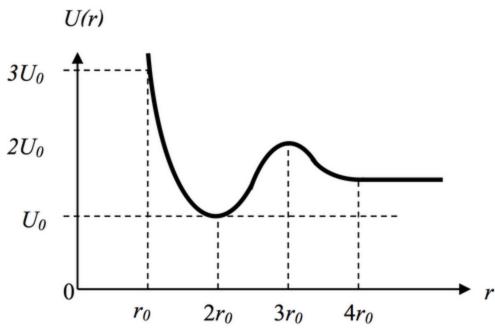
## HW#6

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  $3r_0$ .