

HITT

A particle of mass M is accelerated into the positive x -direction. The acceleration a is constant.



Which potential creates this acceleration?
(Acceleration \rightarrow Force \rightarrow Potential)

A: $U(x) = -Max$

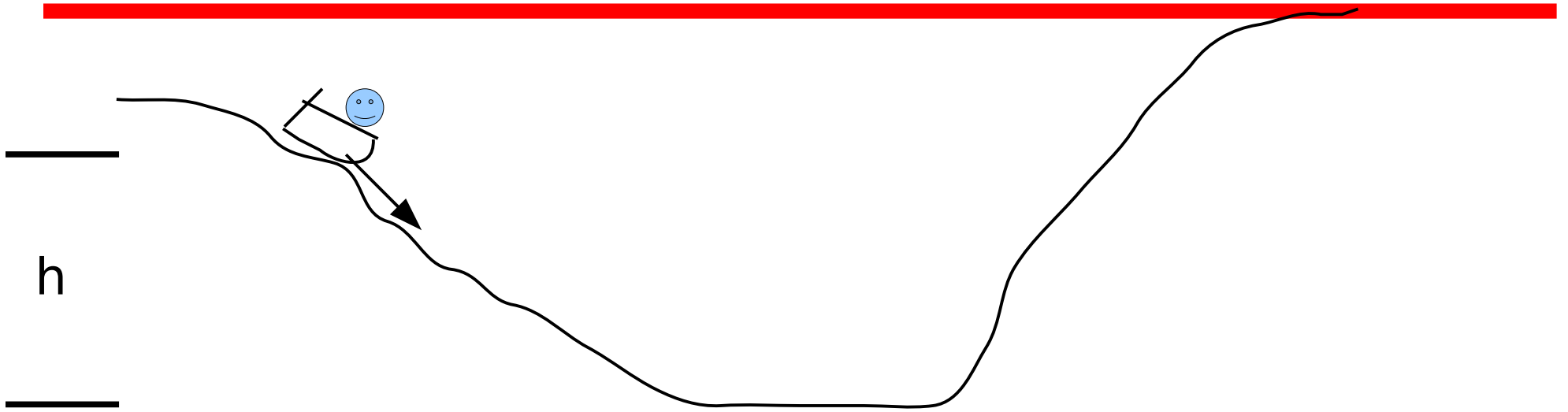
C: $U(x) = -2Mx$

B: $U(x) = -0.5Mx^2$

D: $U(x) = 0.5Mx^2$

E: $U(x) = 2Mx$

HITT Problem 1



A sled initially at rest at height h is released and glides down a slope and then up the hill. What is the maximum speed of the sled? (No friction)

A: \sqrt{gh}

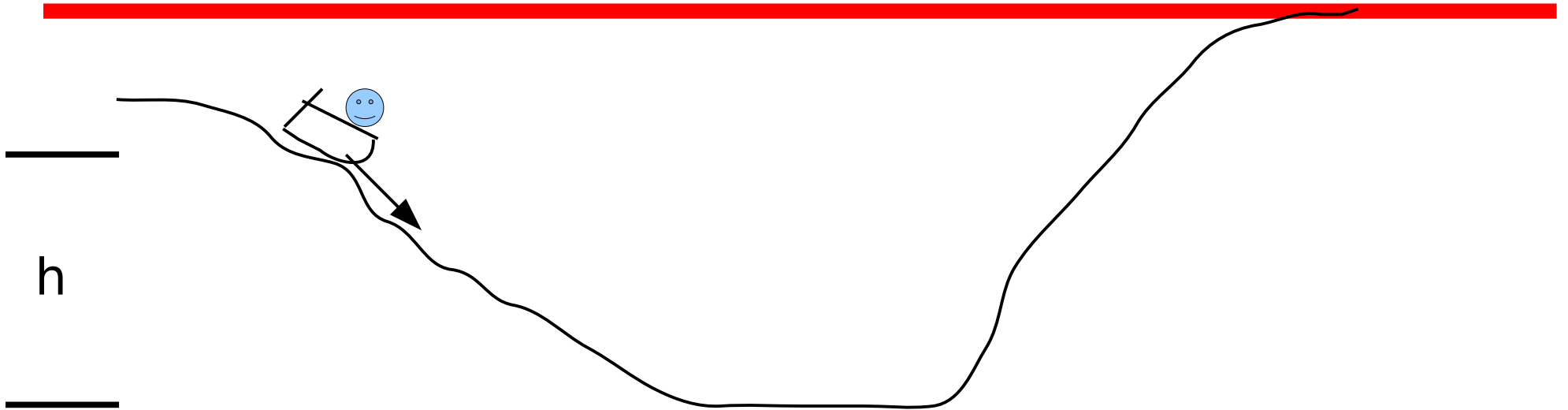
B: $\sqrt{2gh}$

C: $2g/h$

D: gh

E: g/h

HITT Problem 2



A sled initially at rest at height h is released and glides down a slope and then up the hill. What is the maximum speed of the sled? (No friction)

A: \sqrt{gh}

B: gh

C: $2g/h$

D: $\sqrt{2gh}$

E: g/h