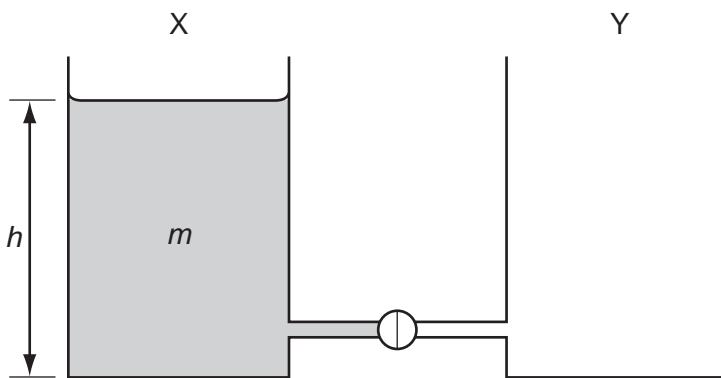


15 The diagram shows two identical vessels X and Y connected by a short pipe with a tap.



Initially, X is filled with water of mass m to a depth h , and Y is empty.

When the tap is opened, water flows from X to Y until the depths of water in both vessels are equal.

How much potential energy is lost by the water during this process? (g = acceleration of free fall)

A 0

B $\frac{mgh}{4}$

C $\frac{mgh}{2}$

D mgh

Space for working