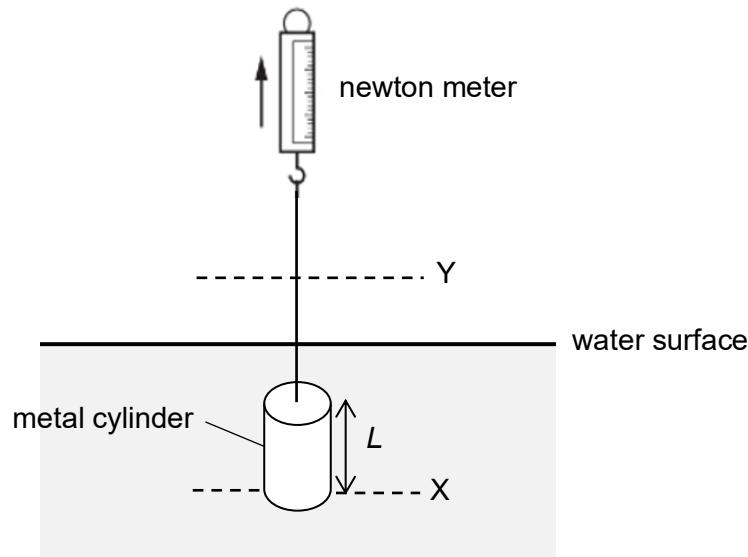


- 6 A metal cylinder, totally immersed in water, is hung from a newton meter.

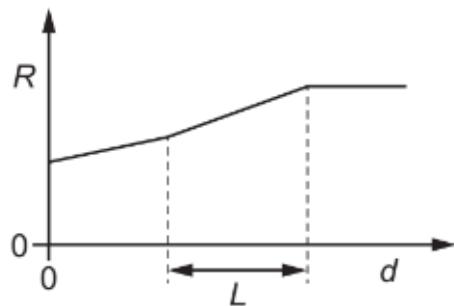


The cylinder, of height  $L$ , is slowly raised vertically by lifting the newton meter. Drag forces are assumed to be negligible.

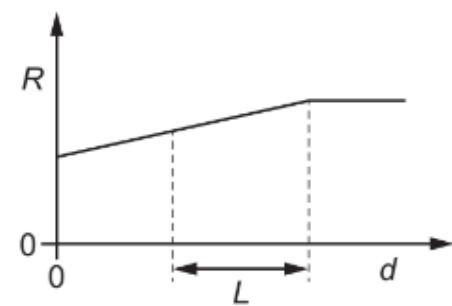
As the base of the cylinder moves from line X in the water to line Y above the surface of the water, the reading  $R$  on the newton meter is recorded. Assume that the velocity of the cylinder is constant.

Which graph best shows the variation of  $R$  with the distance  $d$  of the base of the cylinder from line X?

A



B



C

D

