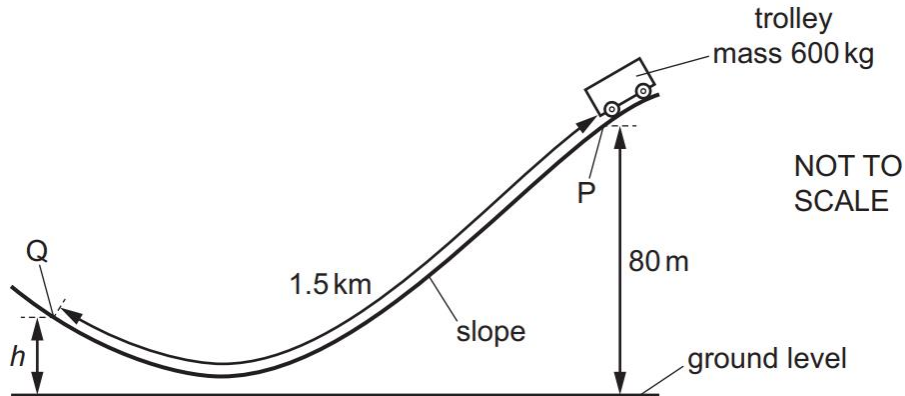


- 8 A trolley of mass 600 kg initially at point P on a slope, at height of 80 m above ground level, as shown. The trolley is released from rest and moves along the slope, reaches a speed of  $12.0 \text{ m s}^{-1}$  at point Q, at height  $h$  above the ground level.



The total distance PQ moved by the trolley along the slope is 1.5 km. A constant resistive force of 200 N opposes the motion of the trolley on the slope.

What is the value of  $h$ ?

A 3.5 m

B 22 m

C 29 m

D 55 m