An elevator is moving at 1.1 m/s as it approaches its destination floor from below. When the elevator is a distance h from its destination, it accelerates with a = −0.77 m/s2, where the negative sign indicates a downward vertical direction. ("Up" is positive.) Find h.

Solution:
Let:
$v = 1.1\ {}^{m}/_{s}$
$a = -0.77\ {}^{m}/_{s^2}$

$h-?$

$h = \frac{1}{2}at^2$
$v = at, t = \frac{v}{a}$
$h = \frac{1}{2}\frac{v^2}{a}$
$h = \frac{1}{2} * \frac{1.1^2}{0.77} = 0.79\ m$

Answer: 0.79 m