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$$s = s_0 + v_0 t + \frac{1}{2} g t^2$$

Sphere ①: $H = \frac{1}{2} g t_2^2$

Sphere ②:

$$(H-h) = \frac{1}{2} g \left(t_2 - \frac{1}{2}\right)^2$$

With $H = 3 \text{ m}$ & $g = 9.81 \text{ m/s}^2$,

eliminate t_2 between the

2 equations & obtain $h = 2.61 \text{ m}$. t_2

