[kœri]wurstwerfen

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- Conni, bored from waiting, throws a piece of [kœri]wurst in the air from 1 m above the ground, and catches it with her mouth (same height).
- If a [kœri]wurst takes t seconds to reach the apex of its trajectory, then the height difference in metres between its release point and the apex is given by

$$s(t) = \frac{1}{2}gt^2.$$



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- Assume that the gravitational constant g is $9.81\,\mathrm{m/s^2}$ and ignore atmospheric drag.
- Note that the [kœri]wurst spends the same amount of time moving upwards as downwards.
- The [kœri]wurst must *not* have positive vertical velocity when reaching the height of the ceiling, to avoid getting stuck.
- Given that the height of the ceiling is $h \leq 10^{15}$ metres, how long can the [kœri]wurst stay in the air?