

Freefall "CODE"

acceleration =  $g = -9.80 \text{ m/s}^2$

'dropped' or 'thrown'

'dropped' means  $v_1 = 0$

'thrown' at max height means  $v_2 = 0$

Ex: A person stands on a 4.0 m high ledge.

- a) If she drops a stone over the lip, how long does it take to reach the ground?

- b) If she instead throws it vertically with  $v_1 = + 6.2 \text{ m/s}$
- i) how high above the ledge will it go? *\* comment on vector nature*

ii) What is its velocity at the bottom?

*\* comment on negative inside square root*

