Motion Calculations

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| --- | --- | --- |
| 𝑣 | velocity at time  | m/s (m s-1) |
|  | velocity at time 0 | m/s (m s-1) |
|  | acceleration | m/s/s (m s-2) |
|  | time | seconds (s) |
|  | displacement | metres (m) |

# Common situations:

 Horizontal motion (e.g. along a flat surface):

 Vertical motion (e.g. falling):

 Dropped:

 Dropped from height *h*:

 Returns to launch height:

 Maximum height: