$\vec{d}$ = displacement (m)

$\vec{v}_o$ = initial velocity ($\frac{m}{s}$)

$\vec{v}$ = final velocity ($\frac{m}{s}$)

$\vec{a}$ = acceleration ($\frac{m}{s^2}$)

t = time (s)

at rest, stopped	*velocity* = 0
starts from rest	$\vec{v}_o = 0$
stops, comes to rest	$\vec{v} = 0$

falls, drops	$\vec{a} = \vec{g} = 10\,\frac{m}{s^2}$ $\vec{v}_o = 0$
thrown	$\vec{a} = \vec{g} = 10\,\frac{m}{s^2}$ $\vec{v}_o \neq 0$

var.	dir.
$\vec{d}$	
$\vec{v}_o$	
$\vec{v}$	
$\vec{a}$	
t	N/A

$$\vec{v}_{ave.} = \frac{\vec{d}}{t} = \frac{\vec{v}_o + \vec{v}}{2}$$
$$\vec{v} - \vec{v}_o = \vec{a}t$$
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