	Velocity	Acceleration	Tension/Friction
Simply falling mass	$\sqrt{2gh}$	g	Mg
Unwinding Cable $g = \frac{g}{1+C\frac{M}{m}}$ and $M = CM$	$\sqrt{\dfrac{2gh}{1+C\frac{M}{m}}}$	$\dfrac{g}{1+C\frac{M}{m}}$	$\dfrac{CMg}{1+C\frac{M}{m}}$
Yo-Yo Put M = m	$\sqrt{\dfrac{2gh}{1+C}}$	$\dfrac{g}{1+C}$	$\dfrac{CMg}{1+C}$
Incline $M = m$ $g = gsin\beta$ $h = \frac{h}{sin\beta}$	$\sqrt{\dfrac{2gh}{1+C}}$	$\dfrac{gsin\beta}{1+C}$	$\dfrac{CMg \times sin\beta}{1+C}$