$v_f = v_i + at$

$d = \frac{at^2}{2} + v_i t$

$a = \frac{(v_f^2 - v_i^2)}{2d}$

$F_{net} = ma$

$d_h = \frac{\sin(2ø)\, v^2}{{}^{+}g}$

↕ $F_{net} = F_a \pm W$

↔ $F_{net} = F_a \pm F_f$

$F_f = \mu mg$

$W = mg$

$d_h = v_h t$

$a = g \sin ø - \mu g \cos ø$

up = F + Cosø*F + Cosø*F

"g" can be subbed in for "a" anytime you are going up and down!

only works when landing at launch height

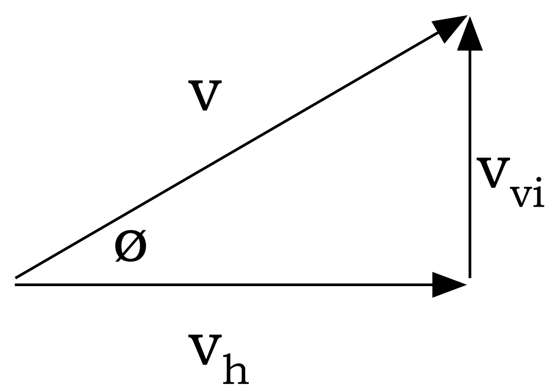
$F_c = \frac{mv^2}{r}$

$F_g = \frac{Gm_1 m_2}{d^2}$

$g' = \frac{Gm_e}{r^2}$

$t_{down} = \sqrt{\frac{2d_v}{g}}$

$v = \sqrt{g' r}$



Check your algebra carefully!

$G = 6.67 \times 10^{-11}\ Nm^2/kg^2$