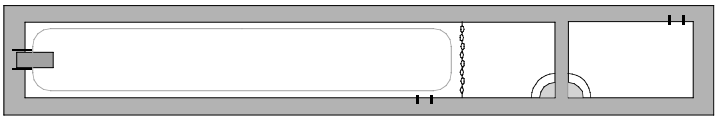
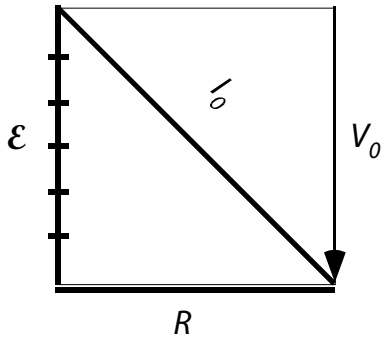
PhyzSpringboard: A Slippery Affair



1-4: Series Slides

Develop equations for the characteristics of each slide in terms of the elevation $\mathcal{E}$ and run length R of slide 1. Then compare the expressions for the individual inclines ($I_1, I_2,$ etc.) and total incline of each slide to the original incline I_0 by means of a product (ex: $2I_0$) or quotient (ex: $I_0/3$). Repeat comparisons for power.

1. Yer Basic Slide

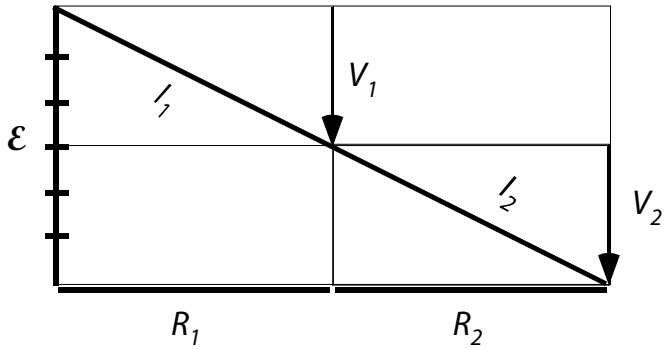


$V_0 =$

$I_0 =$

$P_0 =$

2. Double-Length ($R_1 = R_2 = R$)



$V_{TOT} =$

$I_{TOT} =$

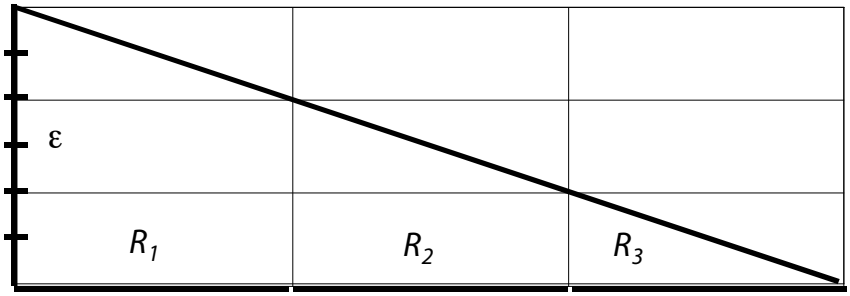
$V_1 =$ $V_2 =$

$P_{TOT} =$

$I_1 =$ $I_2 =$

$P_1 =$ $P_2 =$ $R_{EQ} =$

3.Thrice-as-Nice ($R_1 = R_2 = R_3 = R$) (this time, *you* draw in the *V*'s and *I*'s)



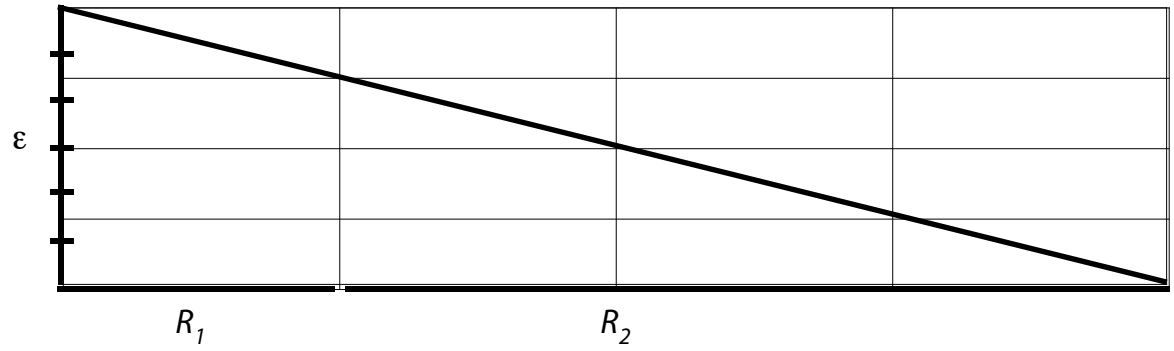
$V_{TOT} =$

$V_1 =$ $V_2 =$ $V_3 =$ $I_{TOT} =$

$I_1 =$ $I_2 =$ $I_3 =$ $P_{TOT} =$

$P_1 =$ $P_2 =$ $P_3 =$ $R_{EQ} =$

4. Unequal Runs ($R_2 = 3R_1$; $R_1 = R$) (this time, *you* draw in the *V*'s and *I*'s)



$V_1 =$ $V_2 =$ $V_{TOT} =$

$I_1 =$ $I_2 =$ $I_{TOT} =$

$P_1 =$ $P_2 =$ $P_{TOT} =$

$R_{EQ} =$