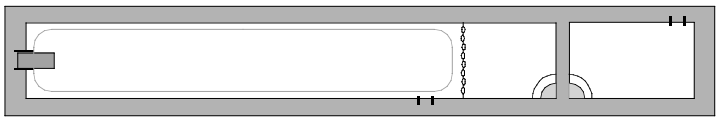
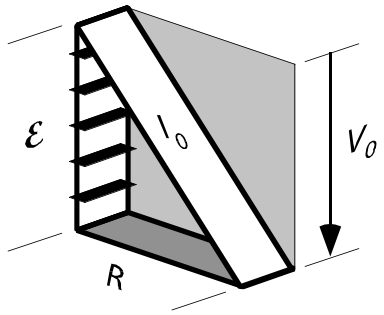
PhyzSpringboard: Another Slippery Affair



5-8: Parallel Slides

Develop equations for the characteristics of each slide in terms of the elevation $\mathcal{E}$ and run length R of slide 5. 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.

5. Yer Basic Slide (dig the groovy 3-D)

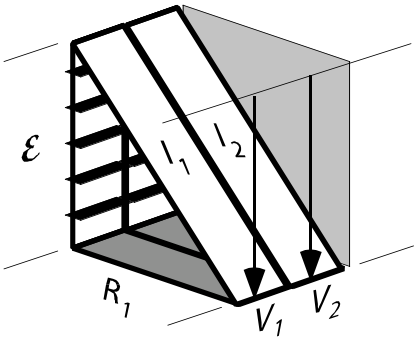


$V_0 =$

$I_0 =$

$P_0 =$

6. Slide-by-Slide ($R_1 = R_2 = R$)



$V_{TOT} =$

$I_{TOT} =$

$V_1 =$ $V_2 =$

$P_{TOT} =$

$I_1 =$ $I_2 =$

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

7. Make Mine a Triple ($R_1 = R_2 = R_3 = R$) (this time, *you* draw in the *V*'s and *I*'s)

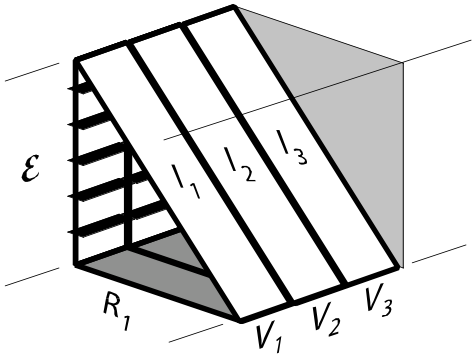


Diagram note: the gray "plank" R_2 is partially obscured; R_3 is completely blocked from view.

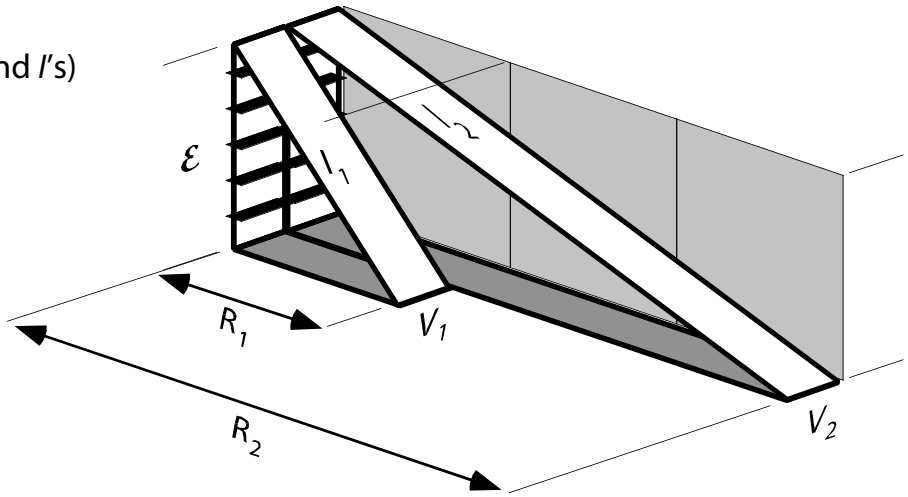
$V_{TOT} =$

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

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

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

8. Fast-or-Slow ($R_2 = 3R_1; R_1 = R$)
(this time, *you* draw in the *V*'s and *I*'s)



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

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

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

$R_{EQ} =$