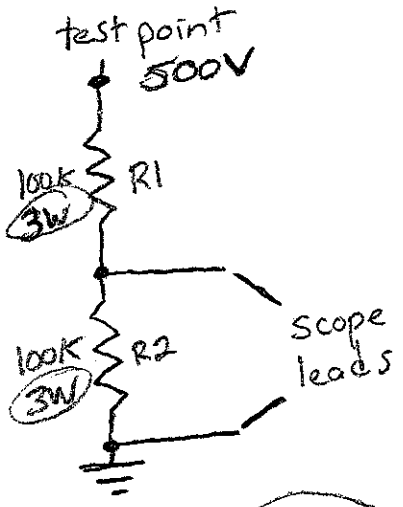
Oscilloscope Voltage Reducer



$V_{R2} = V_T - V_{R1}$

$V_{R2} = 500 - 250$

$V_{R2} = 250\,V$

$P_{Tot} = 1.25\,W$

$I_T = \frac{V}{R_1 + R_2}$

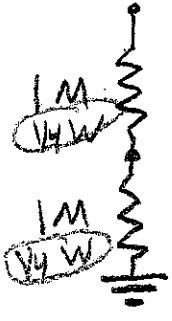
$= \frac{500}{200{,}000}$

$= 0.0025\,A$ (2.5mA) ok loading?

$V_{R1} = I_{R_1} \times R_1$

$= 0.0025 \times 100{,}000$

$= 250\,V$



$V_{R2} = V_T - V_{R1}$

$V_{R2} = 500 - 250$

$V_{R2} = 250\,V$

$P_{Tot} = 125mW$

$I_T = \frac{V}{R_1 + R_2}$

$= \frac{500}{2{,}000{,}000}$

$= 0.00025$ (250μA) better loading?

$V_{R1} = I_{R_1} \times R_1$

$= 0.00025 \times 1{,}000{,}000$

$= 250\,V$

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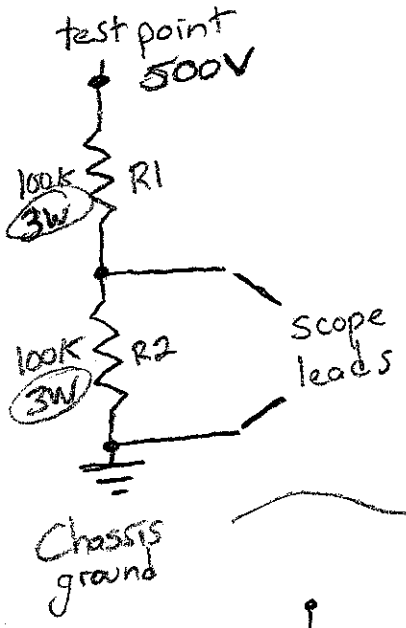

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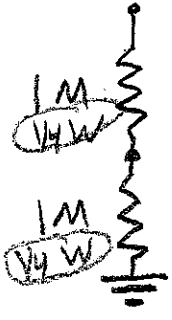

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