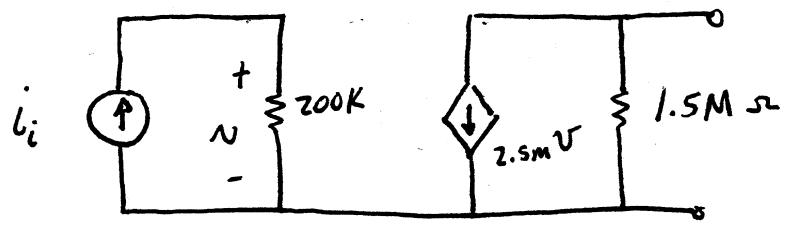
GIVEN:



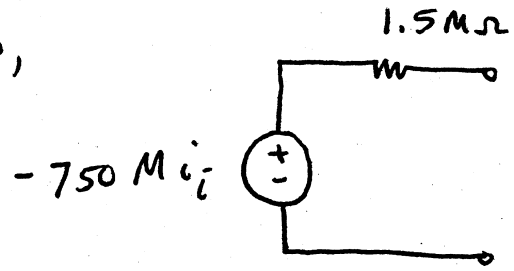
FIND: THEVENIN

SOLN: $V_{oc} = \{-\ 2.5m(200K)\,i_i\}\ 1.5M$

$= -\ 750M\ i_i$

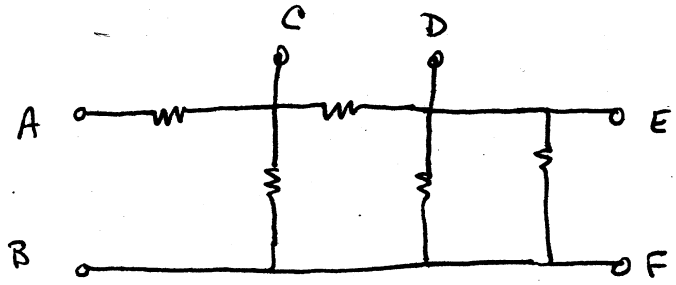
$R_{TH} = 1.5M\Omega$

SO,



TOPS 35500

GIVEN:



FIND: $R_{eq\,CD}$

SOLN: $R_{eq\,CD} = 10 // (10 + 10//10)$

$= \underline{\underline{6\ K\Omega}}$

TOPS 35500

GIVEN: $v_i = 100 \sin(\omega t)\ \mu V$

$v_o = 4 \sin(\omega t + 56^\circ)\ V$

FIND: MAG & PHASE OF VOLT. GAIN

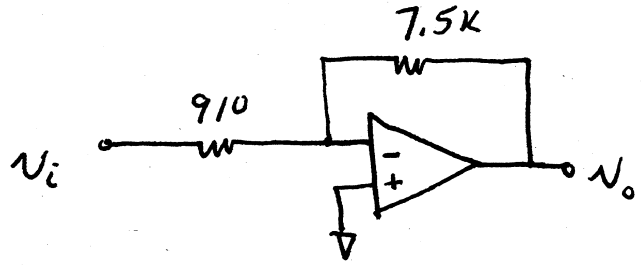
SOLN: $A = \text{GAIN} = \dfrac{v_o}{v_i} = \dfrac{4 \angle 56}{100 \angle 0\ \mu}$

SO, $|A| = \underline{\underline{40\ K}}$

$\angle A = \underline{\underline{56^\circ}}$

TOPS. 35500

Given:



$v_i = 10 \sin(\omega t)$ mV

FIND: v_o & i_i

SOLN: $v_o = -\frac{7.5K}{910} v_i = \underline{-82.4 \sin(\omega t)}$ mV

$i_i = \frac{v_i}{910} = \underline{11 \sin(\omega t)}$ μA

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