

LT 1672

10/02/2005

Max  $\mu p$  SIGNAL =  $5 \mu V \times 4.78 = 23.9 \mu V$ .

$$GAIN = \frac{3V}{23.9 \mu V} = 125.5 \Rightarrow 125$$

$$125 = 1 + \frac{R_f}{R_i}$$

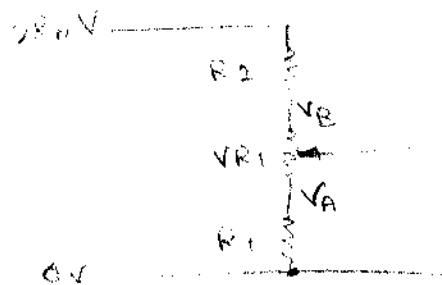
$$124 = \frac{1M\Omega}{R_i}$$

$$R_i = \frac{10^6}{124} = 8064.5 \Omega \Rightarrow 8K06$$

422 - 3810

mv (6) min 15

7  $\mu V$  -15



$$V_B = 28 \text{ mV}$$

$$V_A = 11 \text{ mV}$$

$$\therefore R_2 = 0 \Omega$$

$$R_1 + V_{R1} = 10 \text{ k}\Omega$$

$$V_{R1} = \frac{11}{28} \times 10 \text{ k}$$

$$= 3928 \Rightarrow \underline{\underline{4.7 \text{ k}\Omega}}$$

$$R_2 = 10 \text{ k} - 4.7 \text{ k}$$

$$= 5.3 \text{ k} \Rightarrow \underline{\underline{5.6 \text{ k}\Omega}}$$

$$R_{\text{TOTAL}} = 4.7 \text{ k} + 5.6 \text{ k} = \underline{\underline{10.3 \text{ k}\Omega}}$$

$$V_A = \underline{\underline{15.2 \text{ mV}}}$$

$$V_B = \underline{\underline{28 \text{ mV}}}$$

ALTERNATIVE  $R_2$

$$4.7 \text{ k} = \frac{11}{28} \times R_{\text{TOTAL}}$$

$$R_{\text{TOTAL}} = 11.963 \text{ k}\Omega$$

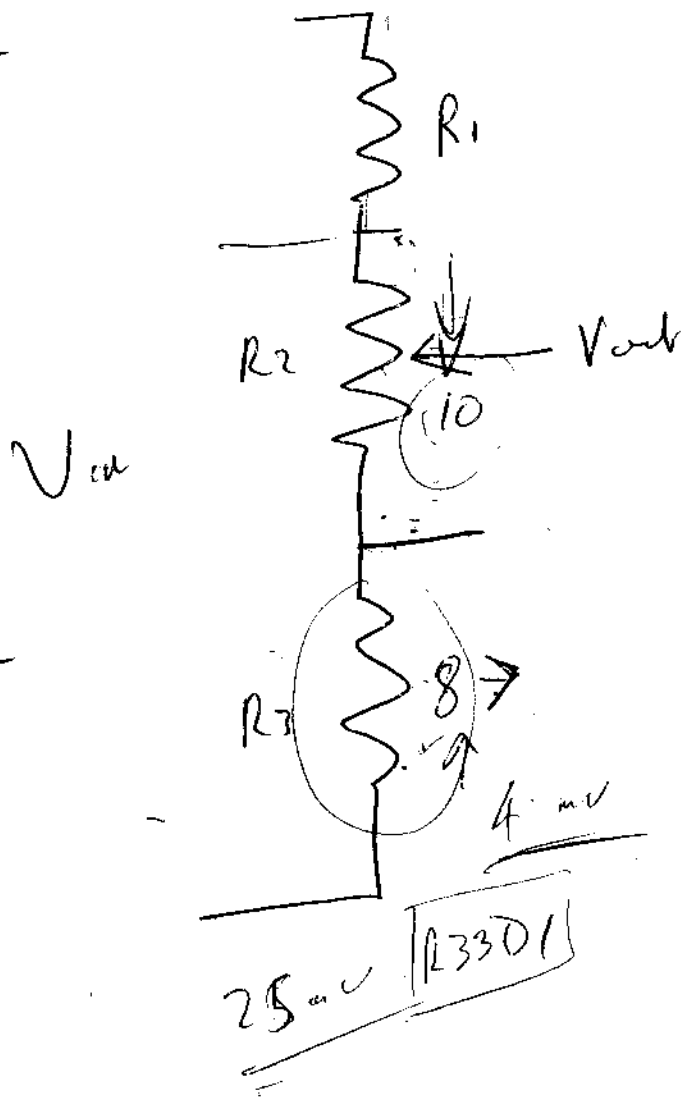
$$R_2 = 11.963 - 4.7 \text{ k}$$

$$= 7263 \Rightarrow \underline{\underline{7.3 \text{ k}\Omega}}$$

$$R_{\text{TOTAL}} = \underline{\underline{12.02 \text{ k}\Omega}}$$

$$V_A = \underline{\underline{17.05 \text{ mV}}}$$

$$V_B = \underline{\underline{28 \text{ mV}}}$$



13.

$V_{out}$

$$\frac{8}{18} \times V_{in} = 5.78$$

$$\frac{487}{128} \times V = \frac{2.54}{7.6V}$$

$$7mV \frac{18}{18} = 7mV$$

$$13 \frac{8}{18} = 5.78$$

$$= 1.3mV$$

4.8

