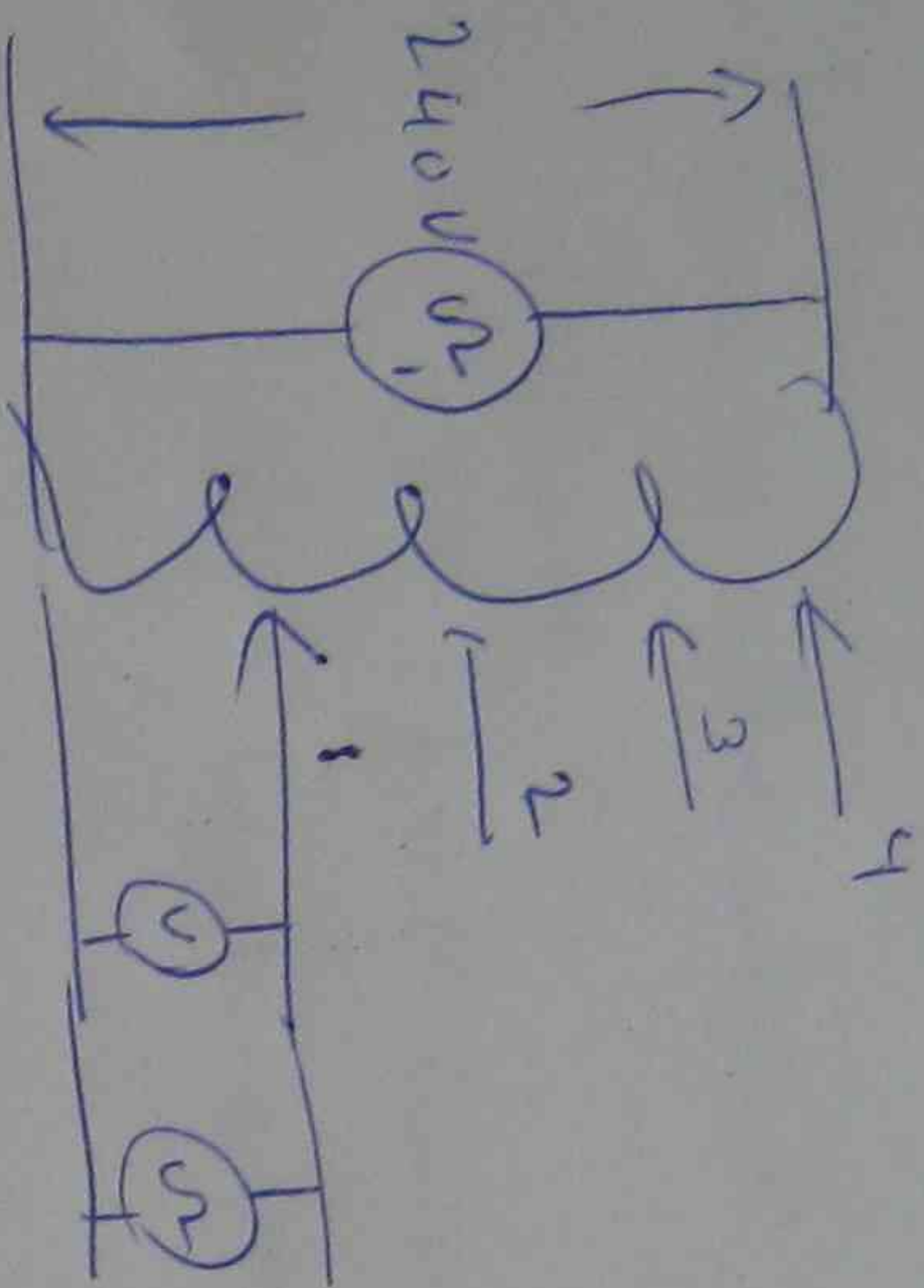


(1) Connect the given circuit



V_{line}

(2) measure R_1 (R)

(3) move ~~pointer~~ knob to 1, 2, 3, 4, 5, 6

positions, measure voltage &

V & R

Position	0 km	voltage	Ratio	\sqrt{a}	R_1/R
1	$R_1 =$	$V_1 =$	$V_1/V = a_1$	$\sqrt{a_1}$	R_1/R
2	$R_2 =$	$V_2 =$	$V_2/V = a_2$	$\sqrt{a_2}$	R_2/R
3	$R_3 =$	$V_3 =$	$V_3/V = a_3$	$\sqrt{a_3}$	R_3/R
4	$R_4 =$	$V_4 =$	$V_4/V = a_4$	$\sqrt{a_4}$	R_4/R
5	$R_5 =$	$V_5 =$	$V_5/V = a_5$	$\sqrt{a_5}$	R_5/R
6	$R_6 =$	$V_6 =$	$V_6/V = a_6$	$\sqrt{a_6}$	R_6/R
7	$R_7 =$	$V_7 =$	$V_7/V = a_7$	$\sqrt{a_7}$	R_7/R
8	$R_8 =$	$V_8 =$	$V_8/V = a_8$	$\sqrt{a_8}$	R_8/R

compare $\frac{V_1}{V} = a_1$ & $\sqrt{a_1}$ & $\frac{R_1}{R}$

compare $\frac{V_2}{V} = a_2$ Then $\sqrt{a_2}$ & $\frac{R_2}{R}$ etc

$$R_1 = a^2 R_L$$

$$\frac{R_1}{R_L} = a^2$$

$$\frac{V_1}{V} = \frac{V_1}{V_2} = a$$