

LAB-1 DEVRE TEORİSİ

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19011002

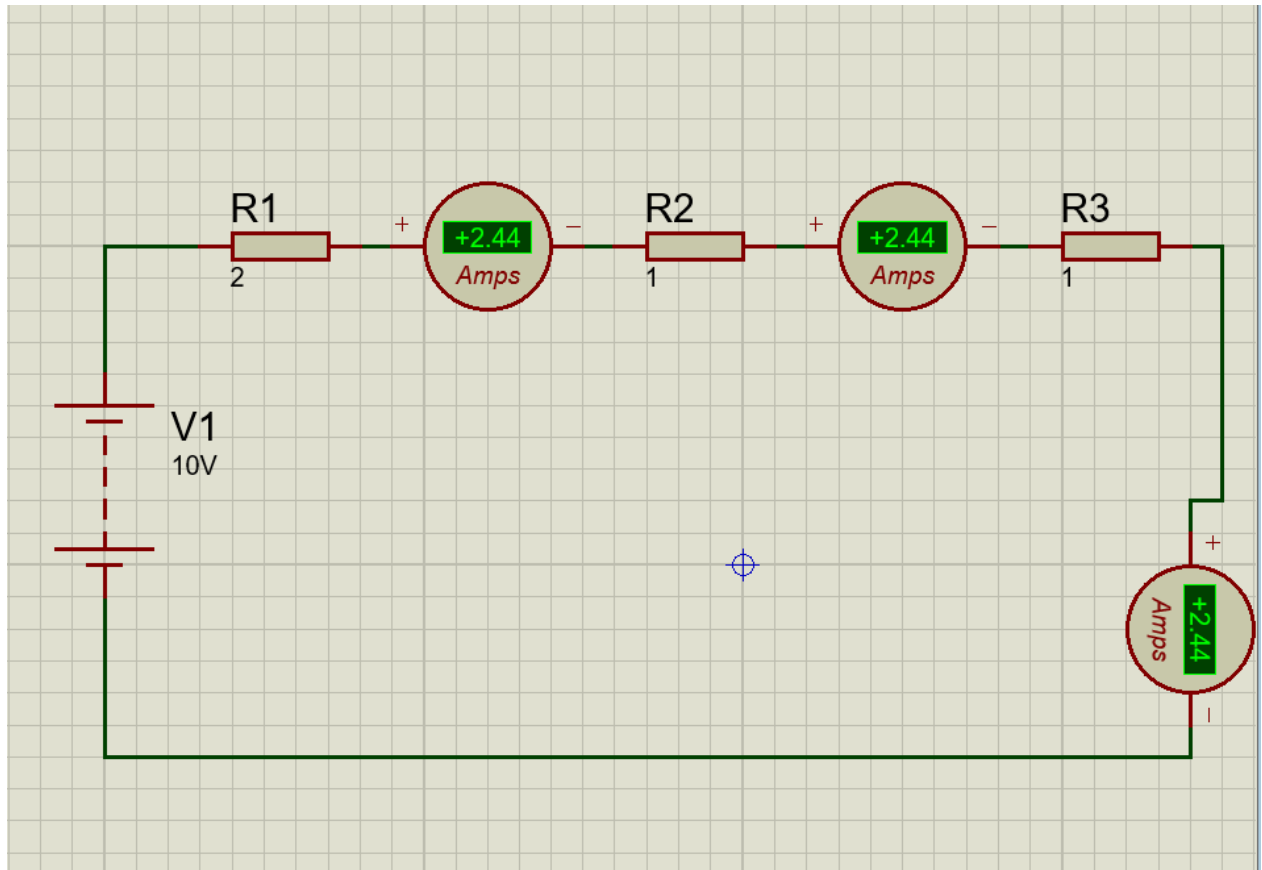
l1119002@std.yildiz.edu.tr

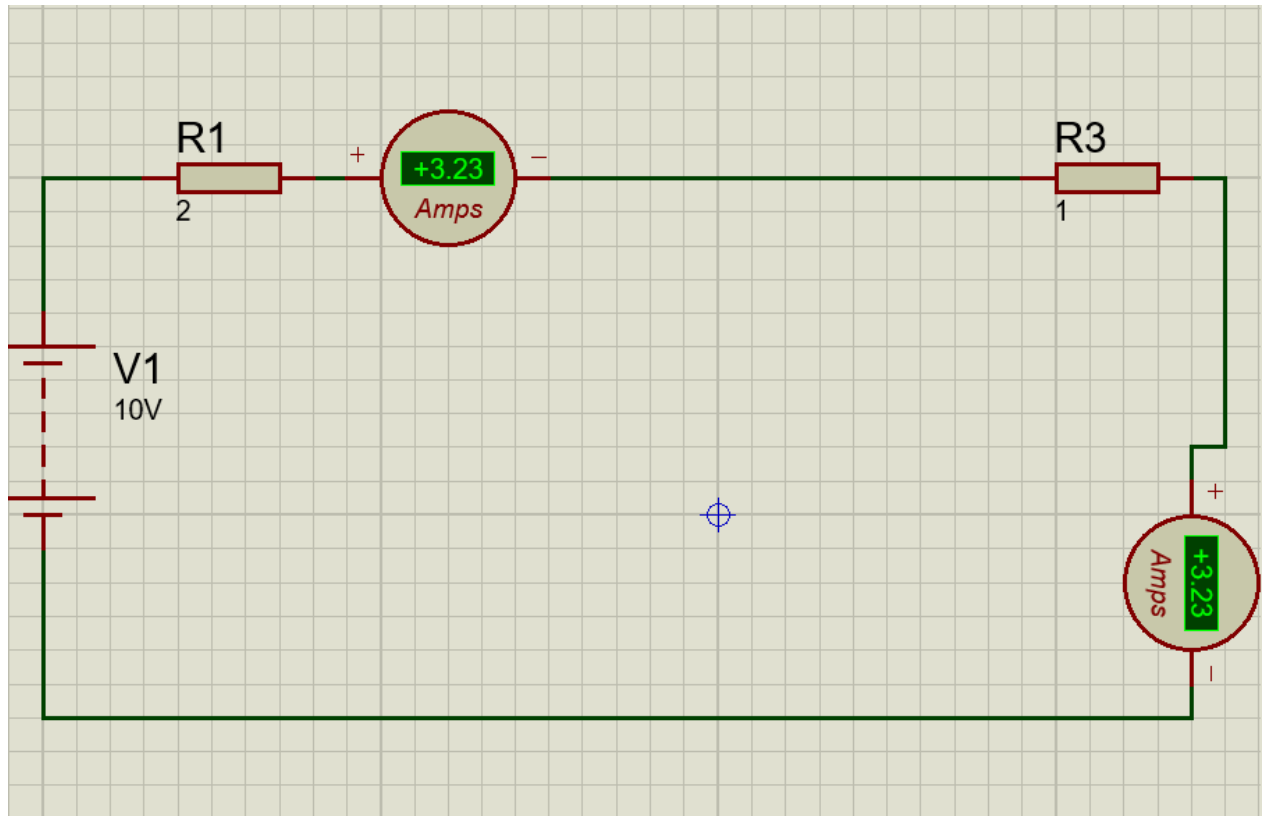
Açıklama: akımlardaki değer farklılıkları öz dirençleri ölçmediğimizden kaynaklanıyor.

Çözüm 1:

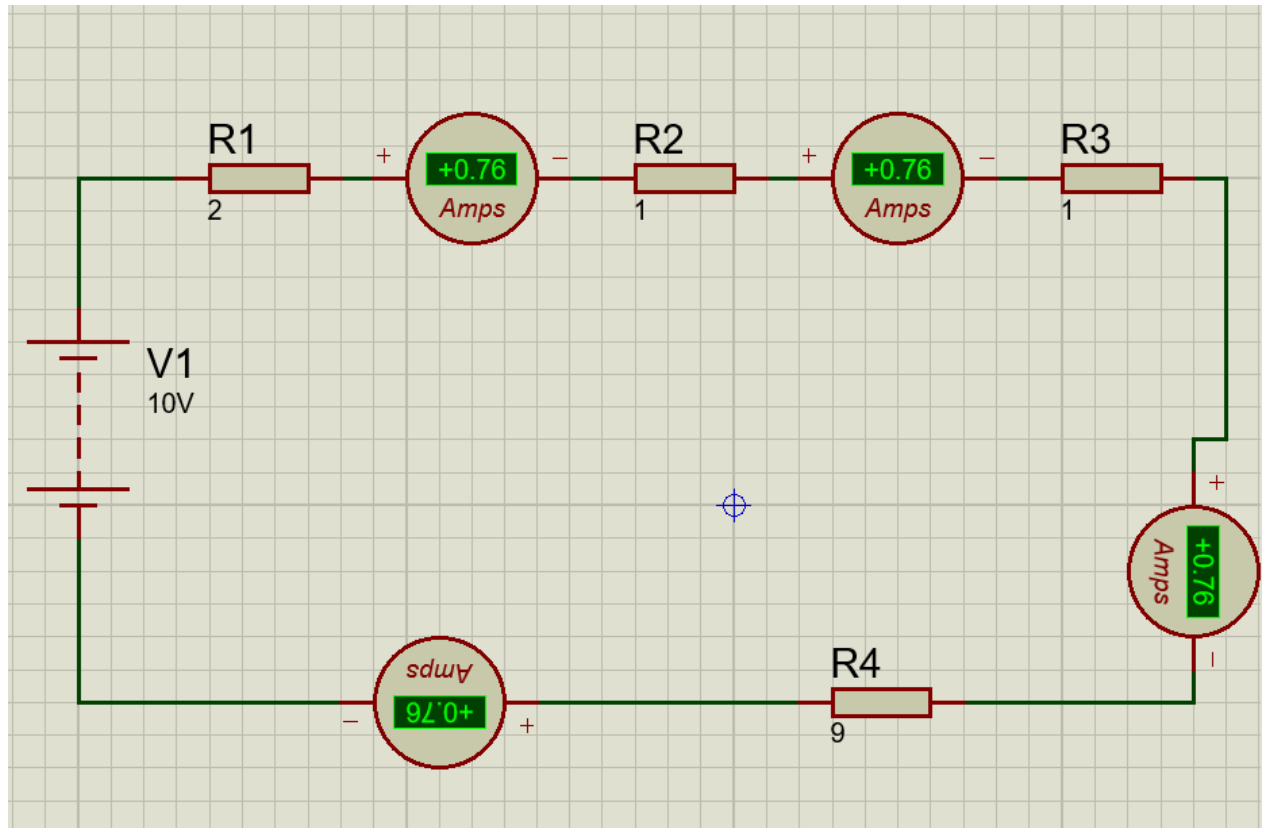
1- Ampermetre Değerleri:

1-



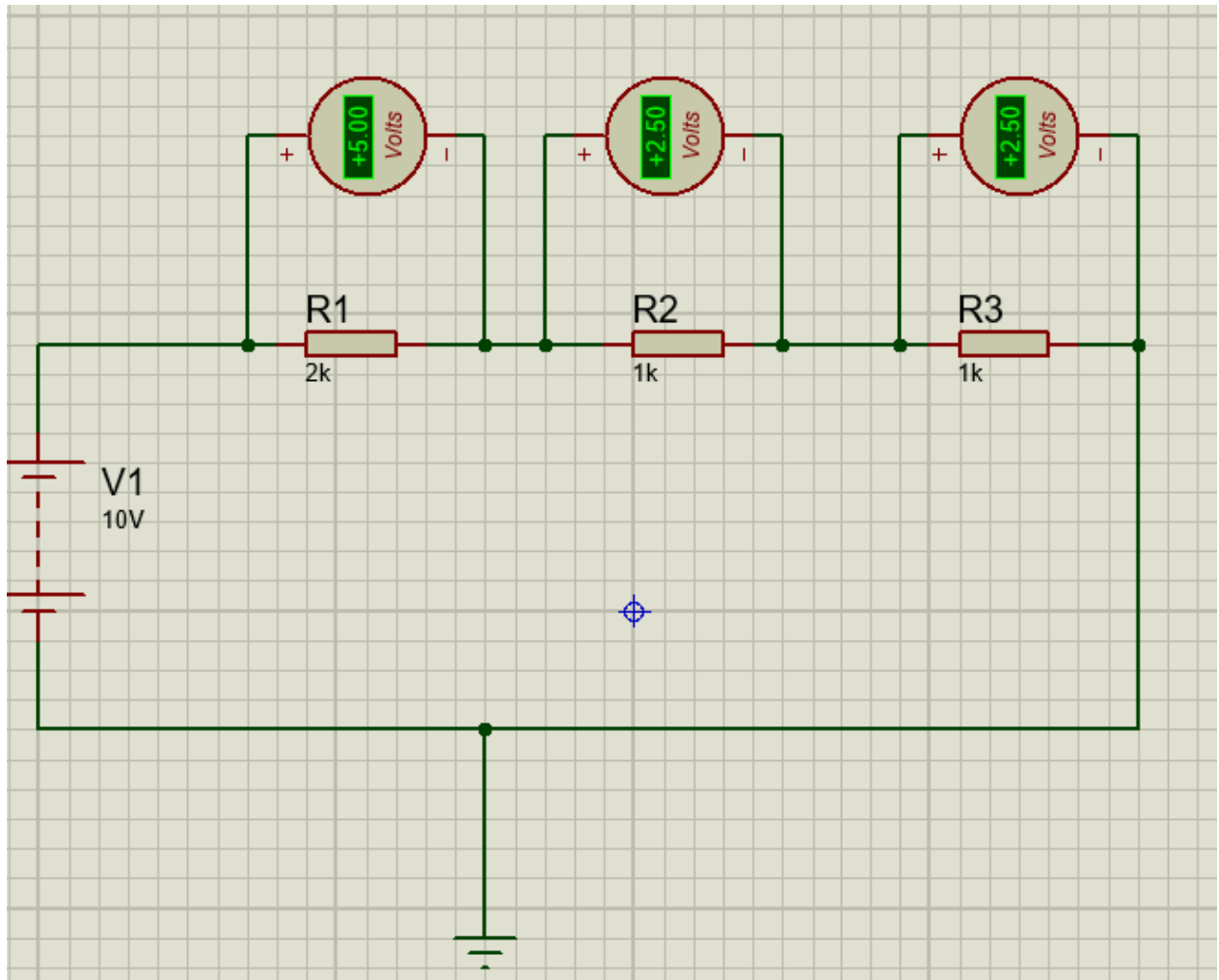


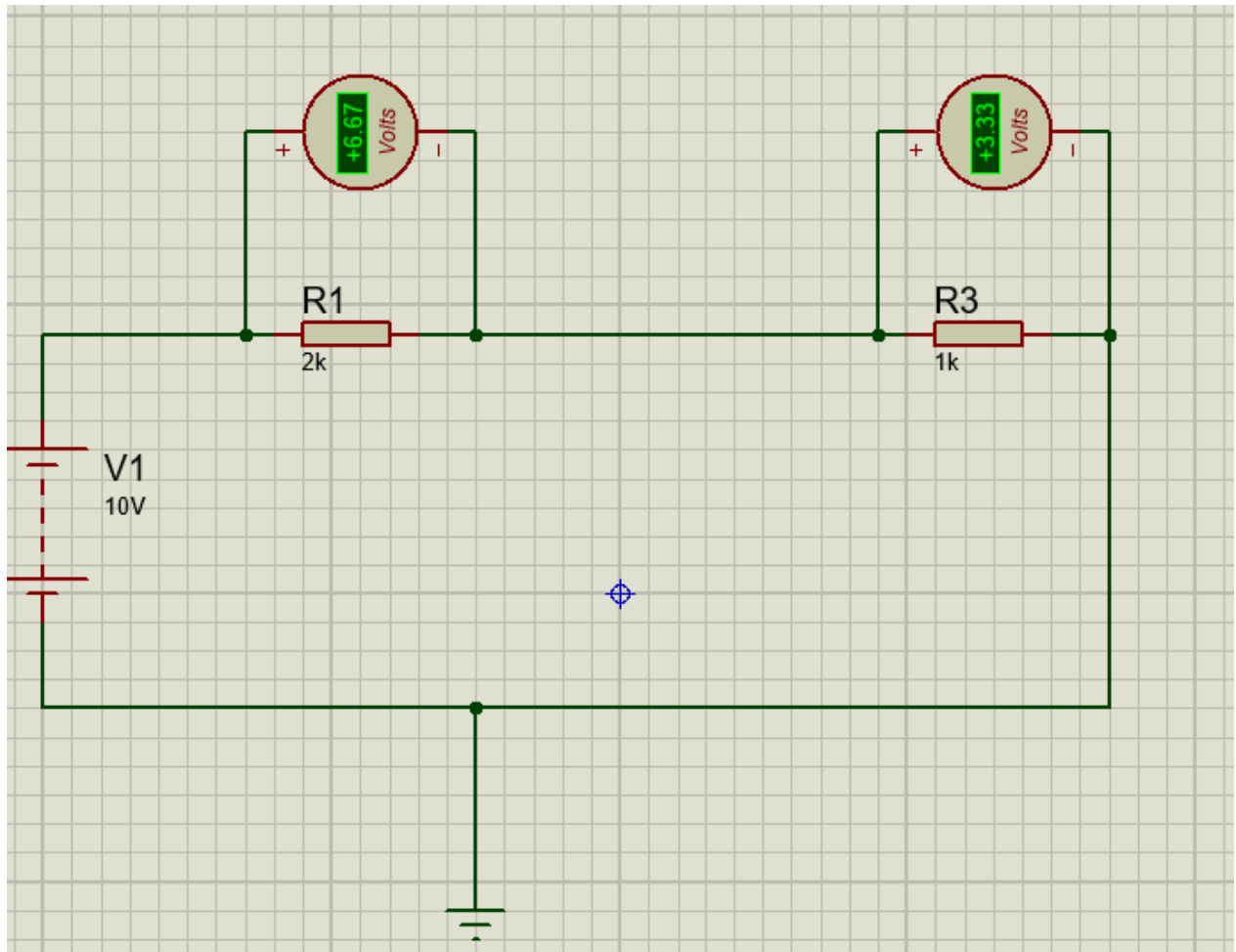
3-

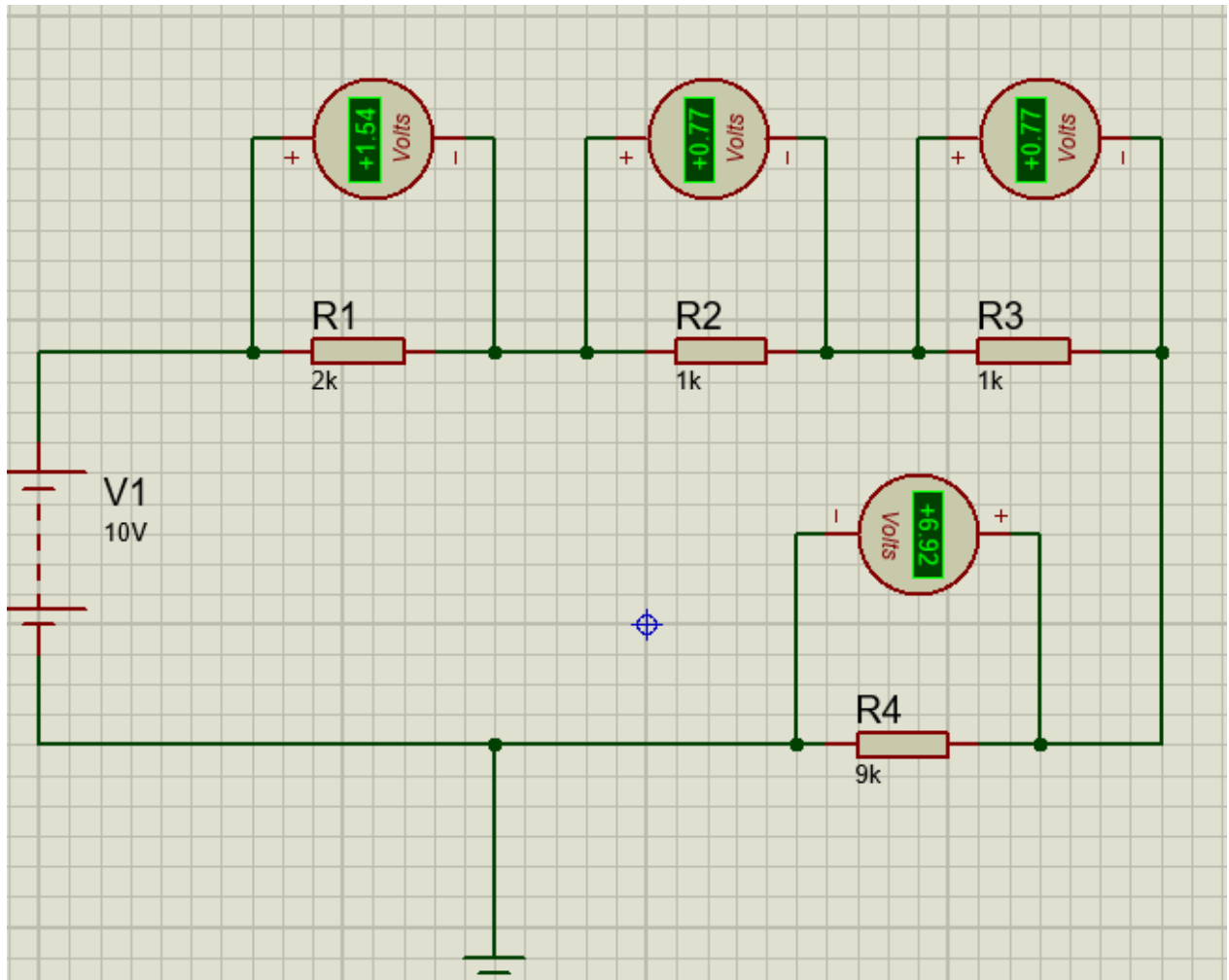


2- Voltmetreler:

1-







3- Tablo:

Örnekler	Seri	V	V ₁	V ₂	V ₃	V ₄	I ₀	I _H	R _e	P
R ₁ direnci yok	R ₁ R ₂ R ₃	10	5	2,5	2,5	—	2,5	2,44	4	
R ₂ v R ₄ yok	R ₁ R ₃	10	6,67	—	3,33	—	3,33	3,28	3	
—	R ₁ , R ₂ R ₃ , R ₄	10	1,54	0,77	0,77	6,92	0,769	0,76	13	

$$\Delta 1 \rightarrow R_{e\phi} = R_1 + R_2 + R_3 = 2 + 1 + 1 = 4$$

$$I_0'' = \frac{V}{R_{e\phi}} = \frac{10}{4} = 2,5$$

$$\Delta 2 \rightarrow R_{e\phi} = R_1 + R_3 = 2 + 1 = 3$$

$$I_0'' = \frac{V}{R_{e\phi}} = \frac{10}{3} = 3,33$$

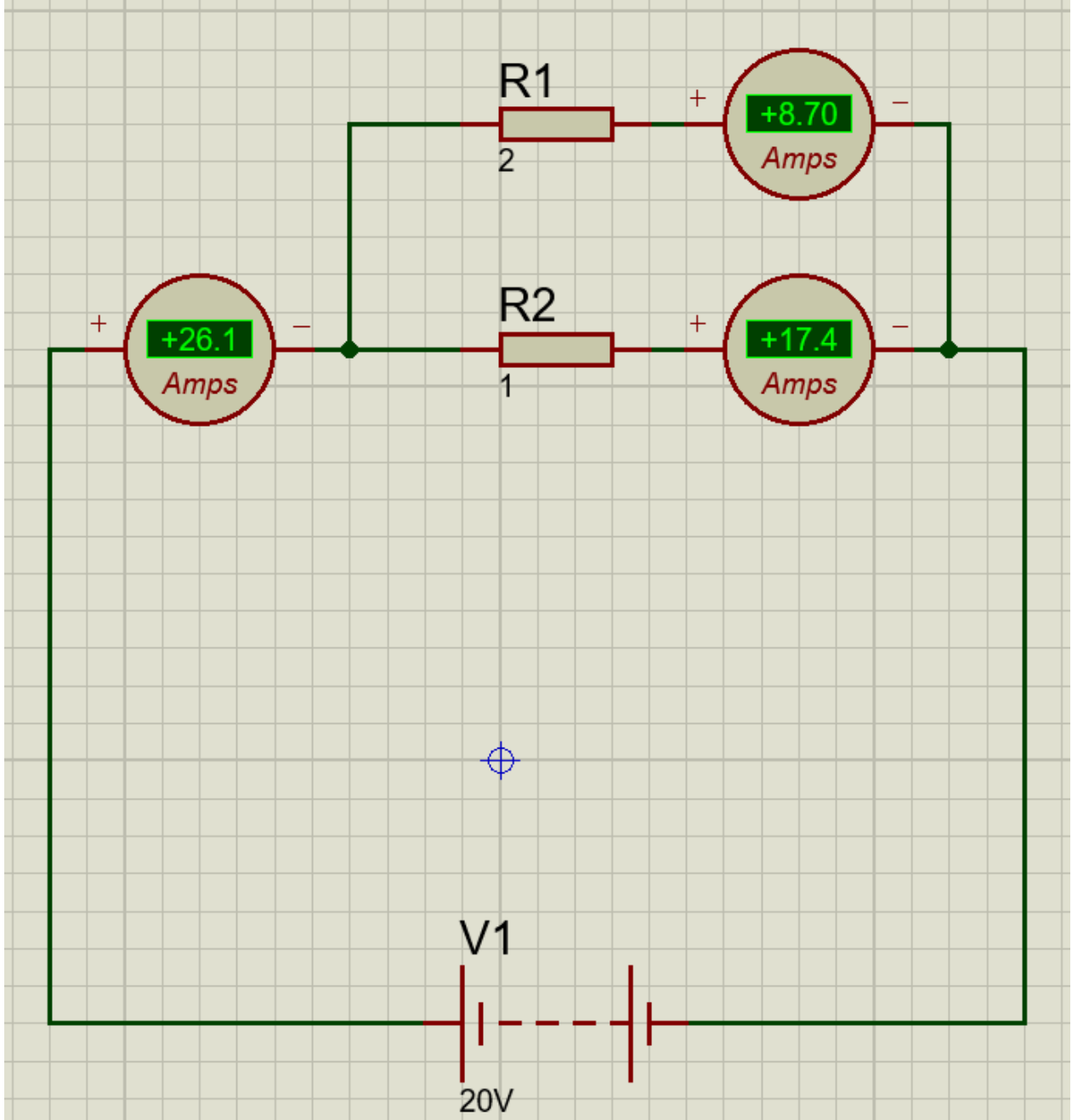
$$\Delta 3 \rightarrow R_{e\phi} = R_1 + R_2 + R_3 + R_4 = 13$$

$$I_0'' = \frac{V}{R_{e\phi}} = \frac{10}{13} = 0,769$$

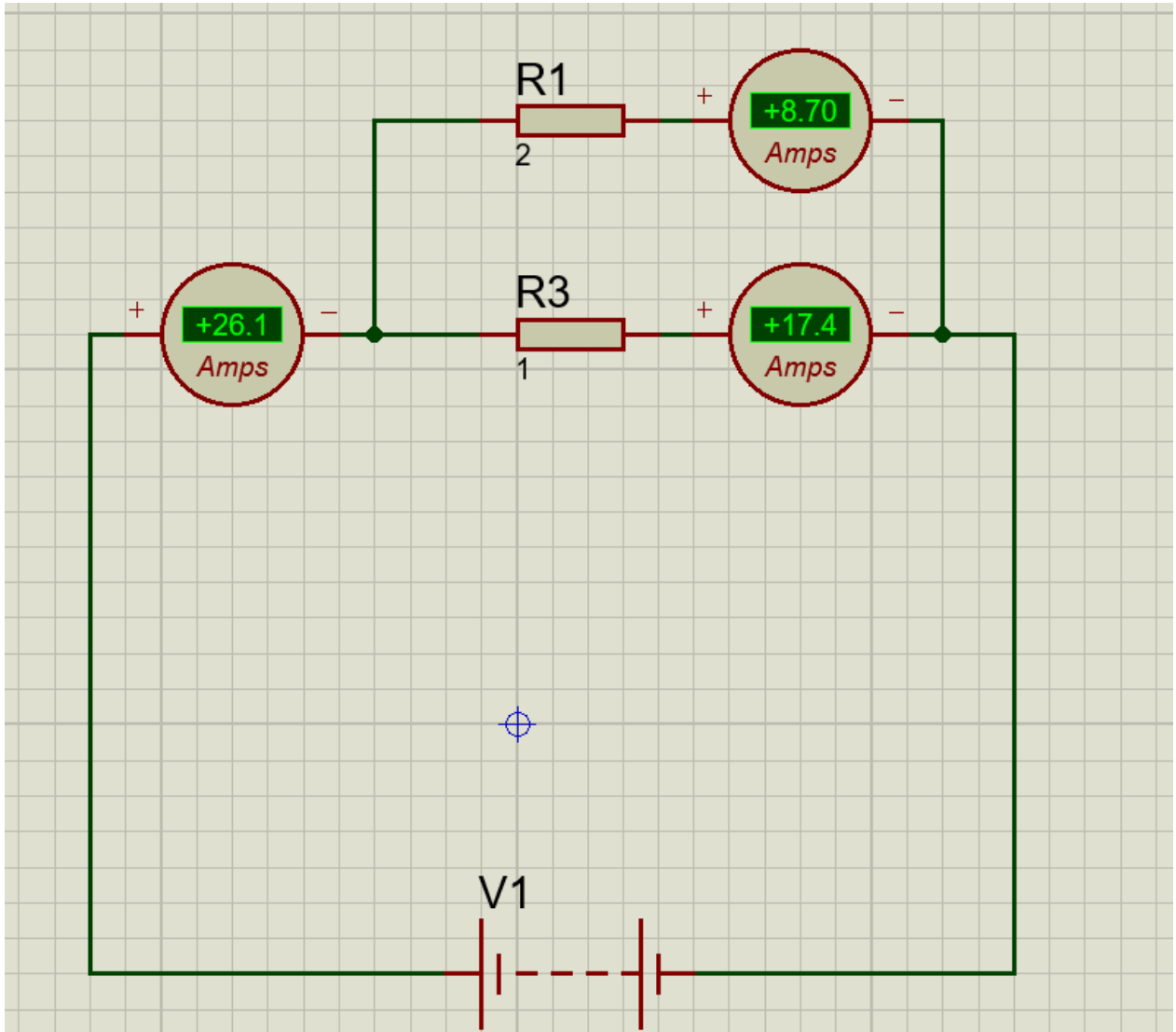
Çözüm 2:

1- Akımlar:

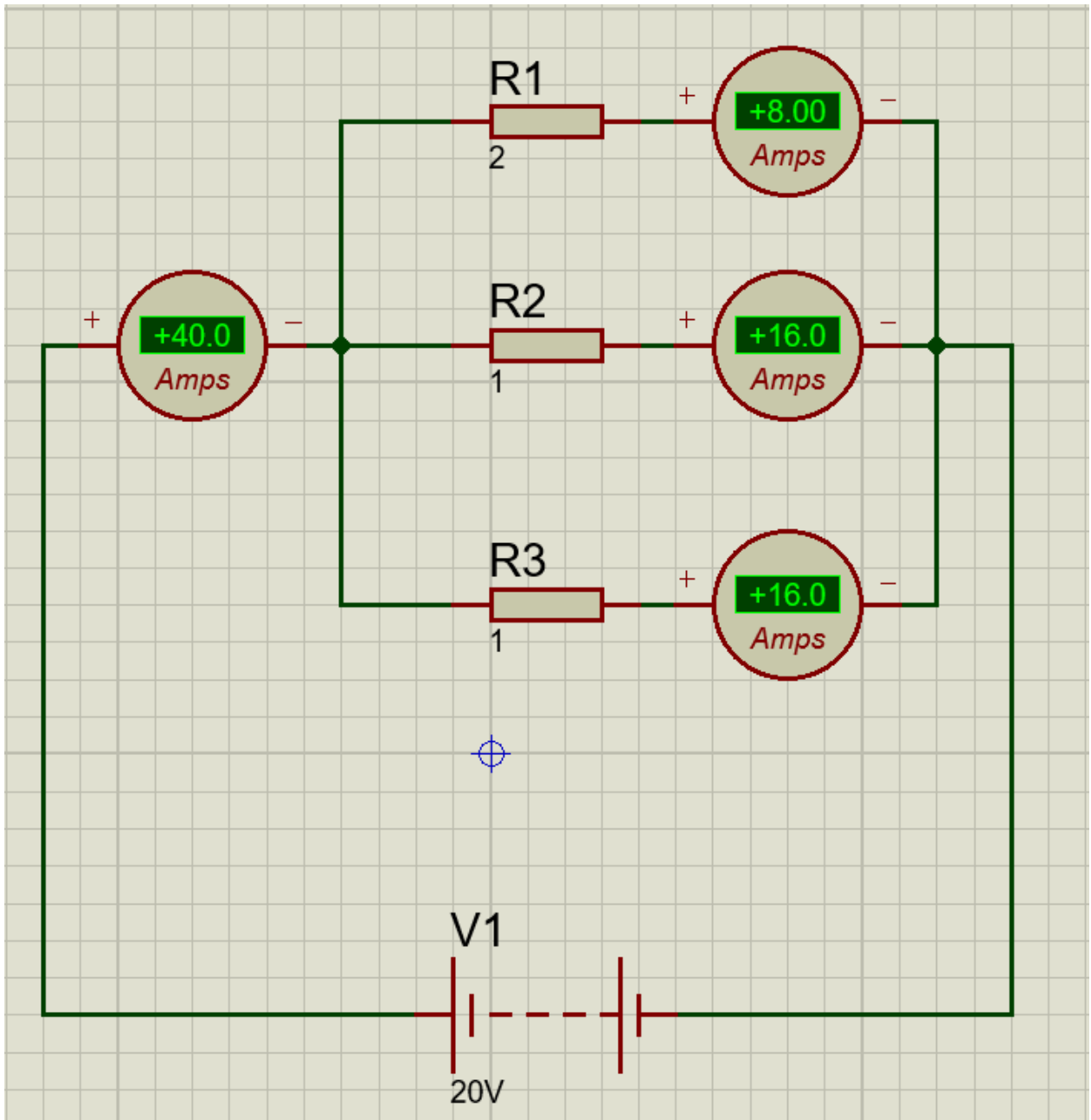
1-



2-



3-



2- Tablo:

Subject: _____ Date: _____

Durumlar	Paralel	V	I_1	I_2	I_3	I_0	I_H	$R_{E\bar{s}}$
R_2 yol	R_1, R_2	20	8,90	17,4	—	26,1	30	0,66
R_2 yol	R_1, R_3	20	8,70	—	17,4	26,1	30	0,66
—	R_1, R_2, R_3	20	8	16	16,40	50	50	0,4

D1 → $\frac{1}{R_{E\bar{s}}} = \frac{1}{2} + \frac{1}{1} = \frac{3}{2} \Rightarrow \frac{2}{3} = R_{E\bar{s}}$

$I_0 = \frac{20}{\frac{2}{3}} = 30$

D2 → $\frac{1}{R_{E\bar{s}}} = \frac{1}{2} + \frac{1}{1} = \frac{3}{2} \Rightarrow \frac{2}{3} = R_{E\bar{s}}$

$I_0 = \frac{20}{\frac{2}{3}} = 30$

D3 → $\frac{1}{R_{E\bar{s}}} = \frac{1}{2} + \frac{1}{1} + \frac{1}{1} = \frac{5}{2} \Rightarrow \frac{2}{5} = R_{E\bar{s}}$

$I_0 = \frac{20}{\frac{2}{5}} = 50$