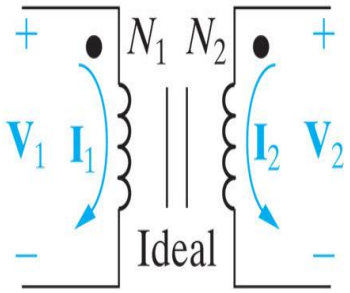
Başkent Üniversitesi Elektrik-Elektronik Müh.
EEM 202 Devre Teorisi 2

İdeal Transformatör

Yrd. Doç. Dr. Selda GÜNEY

İdeal Transformatör

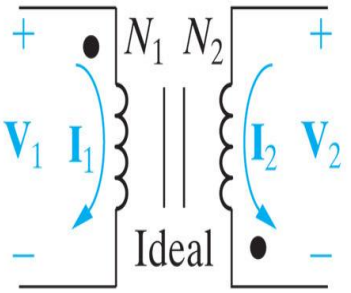
Kutupluluğunun Belirlenmesi



$$\frac{\mathbf{V}_1}{N_1} = \frac{\mathbf{V}_2}{N_2},$$

$$N_1\mathbf{I}_1 = -N_2\mathbf{I}_2$$

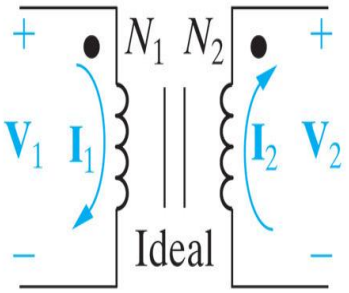
(a)



$$\frac{\mathbf{V}_1}{N_1} = -\frac{\mathbf{V}_2}{N_2},$$

$$N_1\mathbf{I}_1 = N_2\mathbf{I}_2$$

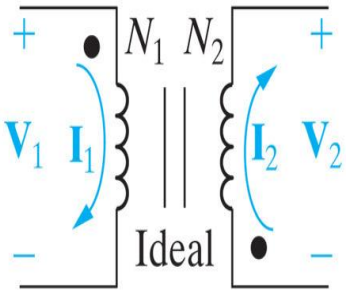
(b)



$$\frac{\mathbf{V}_1}{N_1} = \frac{\mathbf{V}_2}{N_2},$$

$$N_1\mathbf{I}_1 = N_2\mathbf{I}_2$$

(c)



$$\frac{\mathbf{V}_1}{N_1} = -\frac{\mathbf{V}_2}{N_2},$$

$$N_1\mathbf{I}_1 = -N_2\mathbf{I}_2$$

(d)

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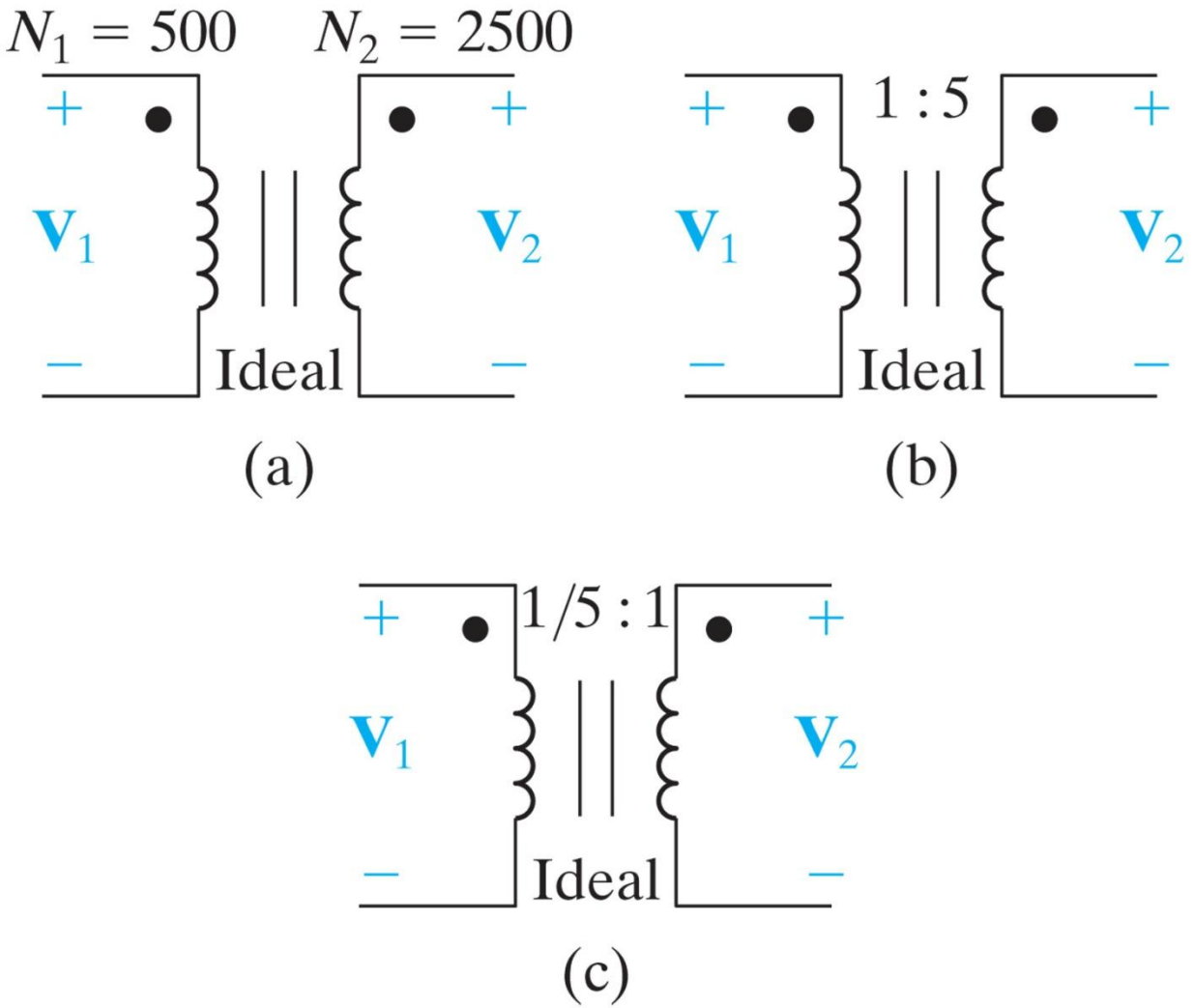
Sarım oranı 3 farklı şekilde gösterilebilir



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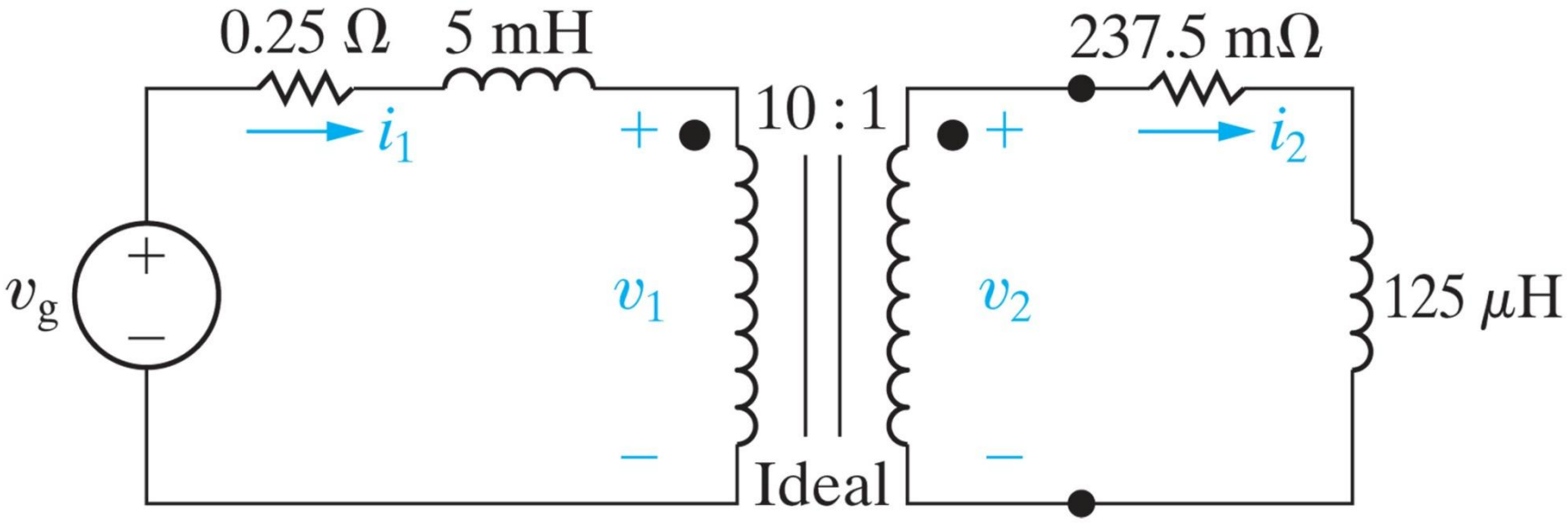
Örnek: $v_g = 2500 \cos 400t$ V



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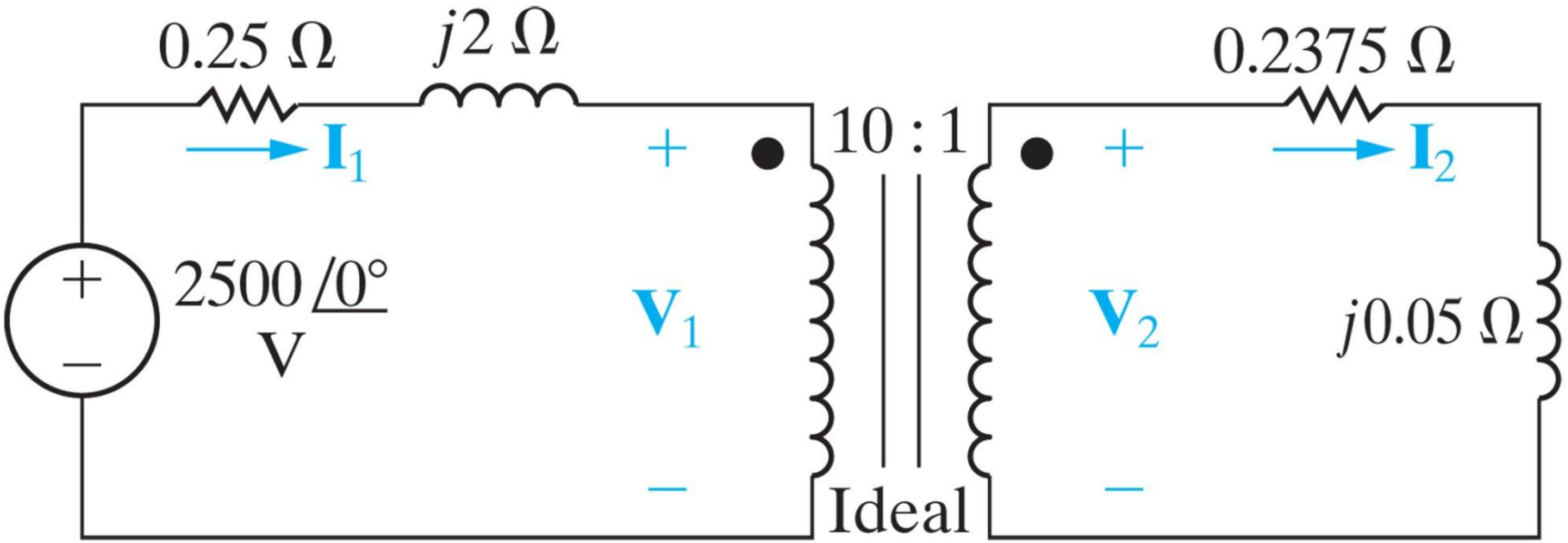
Örneğe devam…

$X_L = jwL$

Fazör bölgesi eşdeğer devresi:



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Empedans Uyumu için İdeal Trafo Kullanımı