
E4. 전력

숙제

- 1) 예제 8-10을 풀어라.
- 2) Simulation을 통해 \mathbf{I}_1 과 \mathbf{I}_2 의 실효값을 확인하고, \mathbf{I}_2 , \mathbf{I}_L , \mathbf{I}_C 의 그래프를 비교하라.

[예제 8-10] 그림 8-16의 두 회로에 대한 전력을 구하시오.

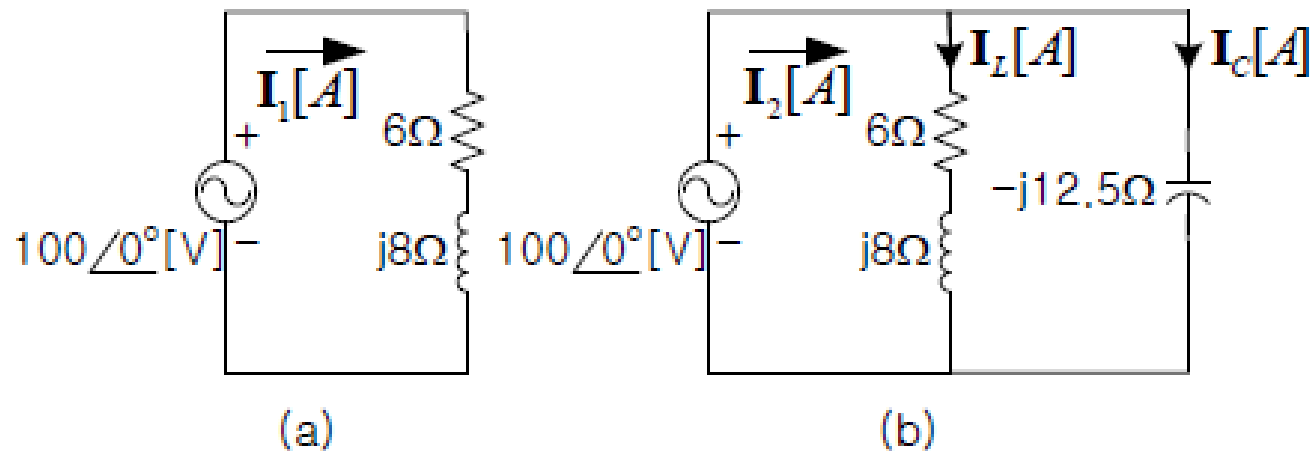
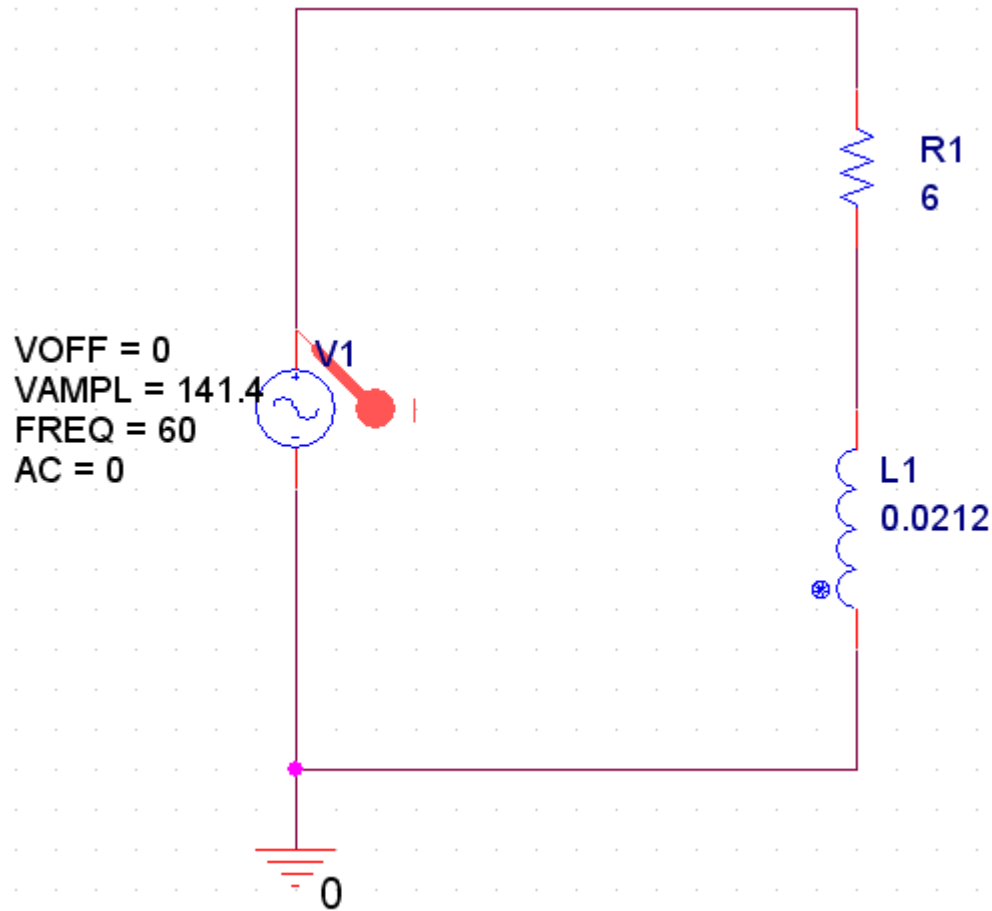


그림 8-26

[a] 회로



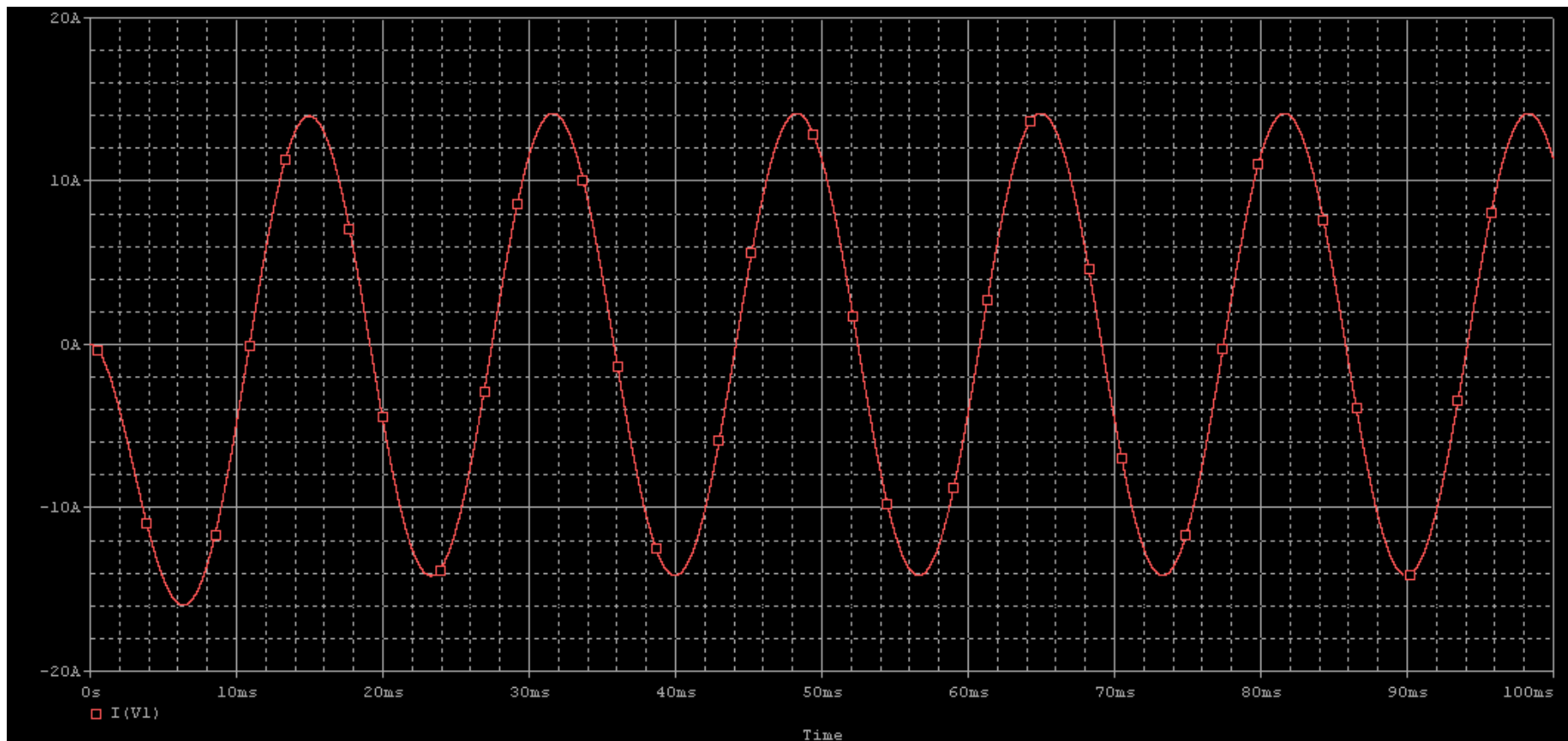
$$2\pi fL = 8$$

$$L = \frac{8}{2\pi f}$$

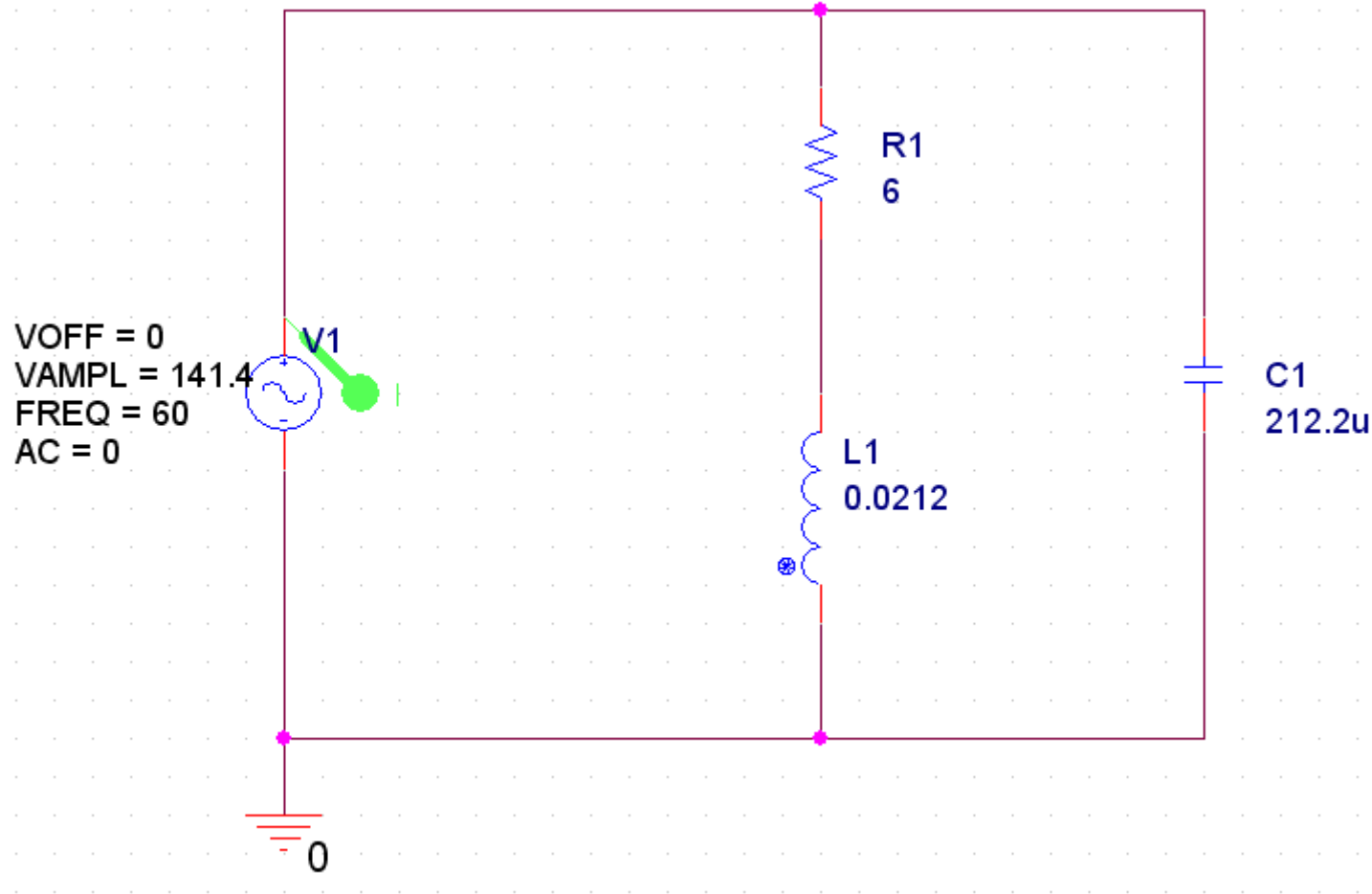
$$f = 60\text{Hz}$$

$$L = 0.0212\text{H}$$

[a] 회로



(b) 회로



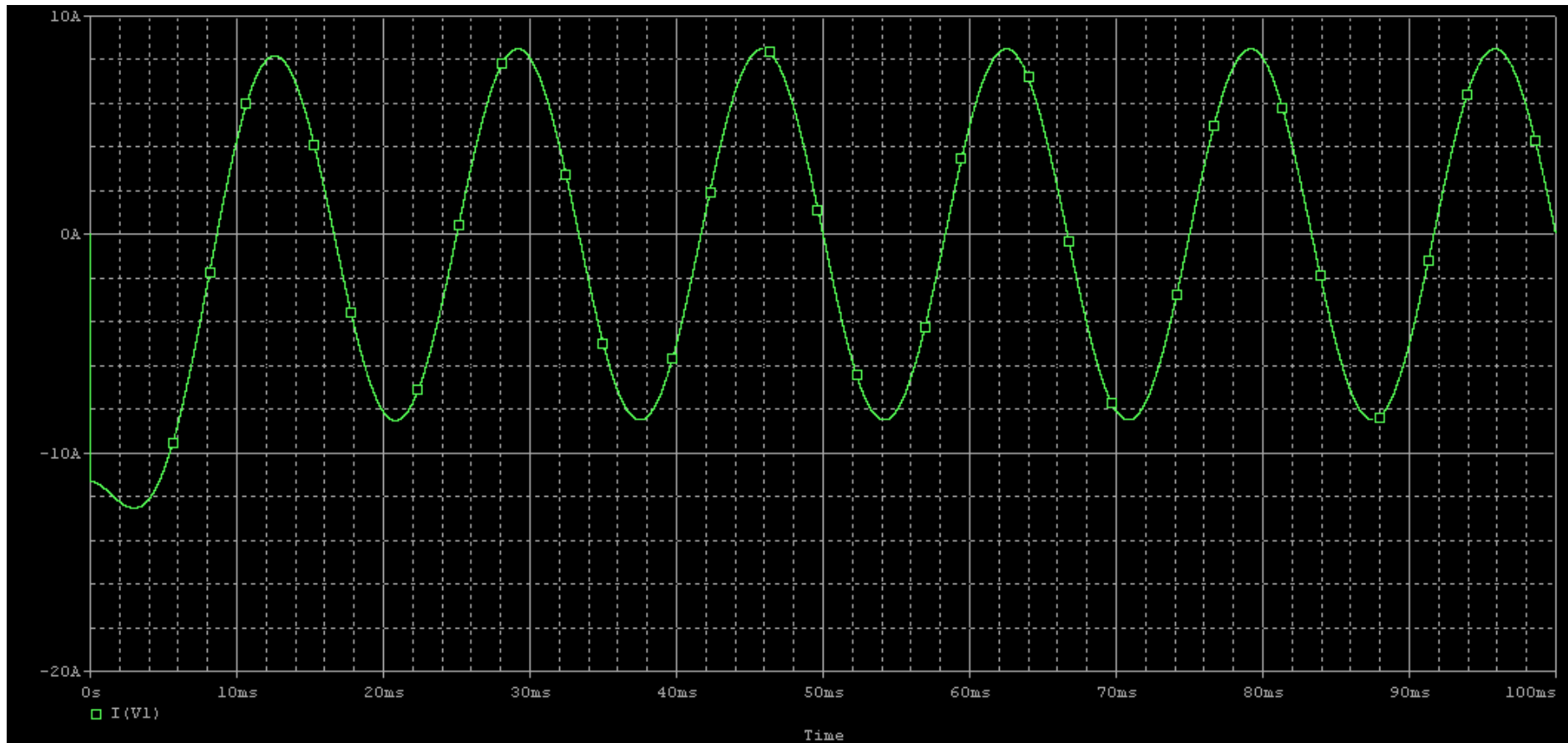
$$\frac{1}{2\pi fC} = 12.5$$

$$C = \frac{1}{2\pi f \times 12.5}$$

$$f = 60\text{Hz}$$

$$C = 212.2\mu\text{F}$$

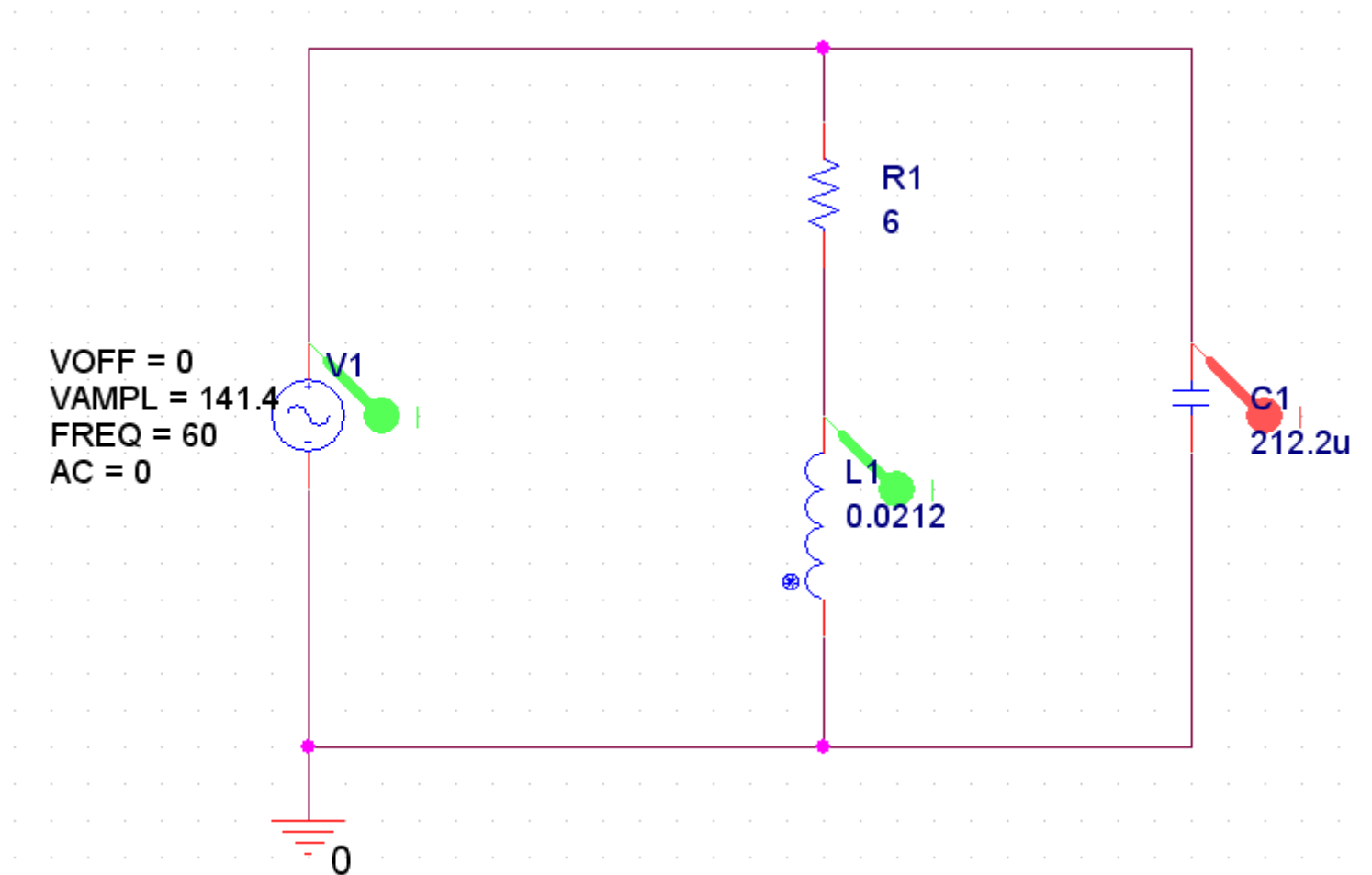
(b) 회로



Plot 추가



Plot 추가



(b) 회로

