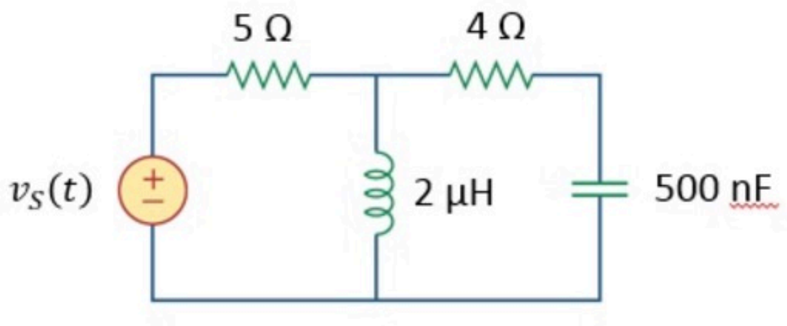
PP AC power 006

Unlimited Attempts.

$$v_S(t) = 10\sqrt{2} \cdot \cos\left(10^6 t + \frac{\pi}{6}\right) \text{V}$$

Find the average power P_1 supplied by the source v_S.
Find the average power P_2 received by the 5 Ω resistor.
Find the average power P_3 received by the 4 Ω resistor.
Find the average power P_4 received by the capacitor.
Find the average power P_5 received by the inductor.



Given Variables:

. : . .

Calculate the following:

P1 (W) :

15 ✓

P2 (W) :

12.5 ✓

P3 (W) :

2.5 ✓

P4 (W) :

0 ✓

P5 (W) :

0 ✓

Hint: Find S first for each element. Keep Vs algebraic. Can you predict P for the cap and inductor? Check.