AC power 005
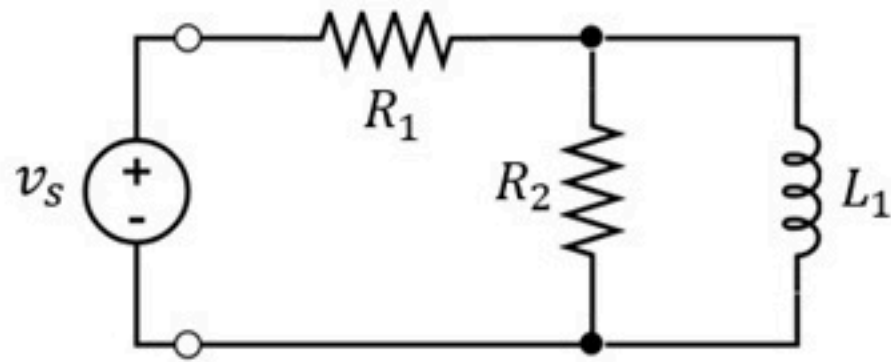
$$v_s(t) = A_1 \cos(500t + B_1)$$

Find the complex power $S_1 = a_1 + b_1 j$ <u>received</u> by the source v_S.

Find the complex power $S_2 = a_2 + b_2 j$ <u>received</u> by the resistor R_1.

Find the complex power $S_3 = a_3 + b_3 j$ <u>received</u> by the resistor R_2.

Find the complex power $S_4 = a_4 + b_4 j$ <u>received</u> by the inductor L_1.

Given Variables:

A1 : 6 V

B1 : 45 degrees

R1 : 4 ohm

R2 : 4 ohm

L1 : 8 mH

Calculate the following:

a1 (W) :

-2.7   ✓

b1 (VAR) :

-0.9   ✓

a2 (W) :

1.8   ✓

b2 (VAR) :

0   ✓

a3 (W) :

0.9   ✓

b3 (VAR) :

0   ✓

a4 (W) :

0   ✓

b4 (VAR) :

0.9   ✓