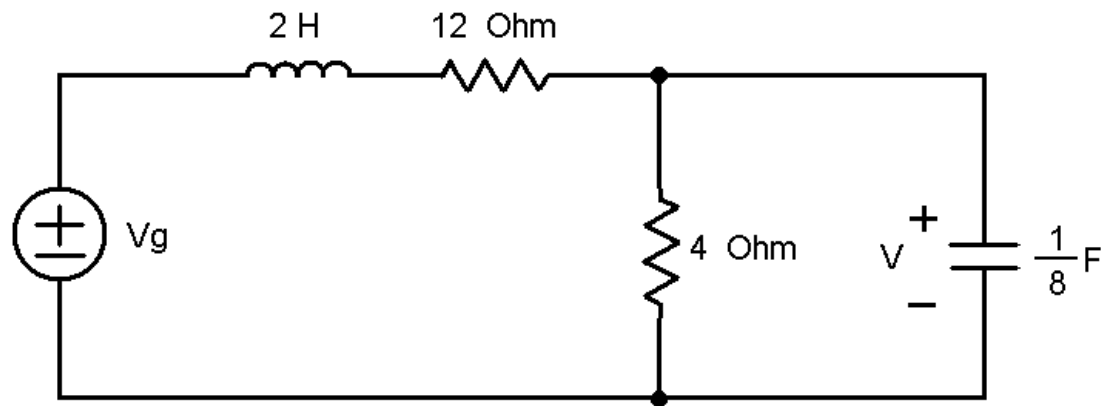


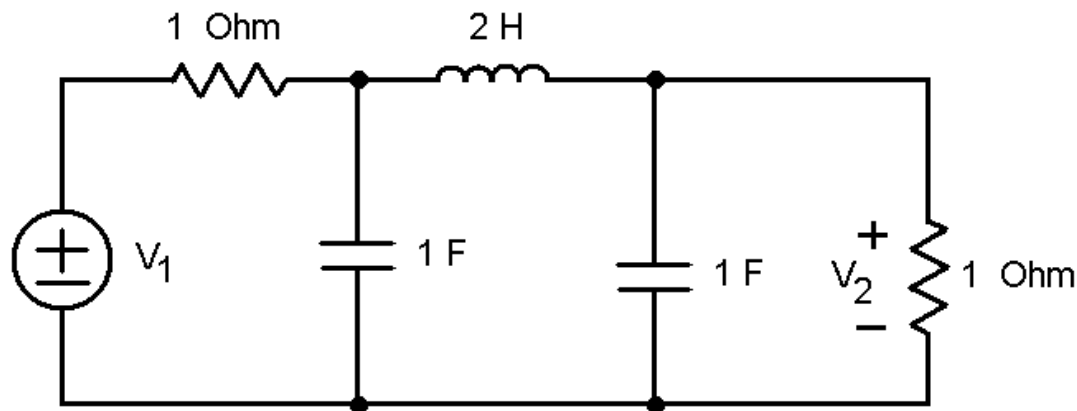
Latihan Soal-soal Complex Frequency and Network Functions

1. Find the forced response of  $v$  if  $v_g = 16e^{-6t} \cos 2t$



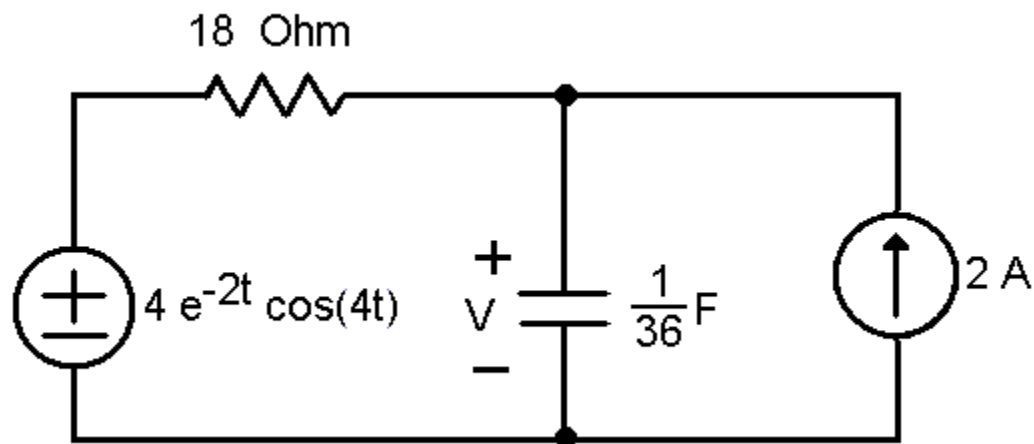
Answer :  $-8 e^{-6t} \sin(2t)\text{ Volt}$

2. Find the network function  $\frac{V_2}{V_1}$  and use the result to find the forced response  $v_2(t)$  when  $v_1(t) = 4 \cos(t)\text{ Volt}$



Answer :  $\sqrt{2} \cos(t - 135^\circ)\text{ Volt}$

3. Find the complete response  $v$  if  $v(0) = 0$ . Use network function and superposition



Answer :  $-36e^{-2t} + 2 e^{-2t} \sin(4t) + 36\text{ Volt}$