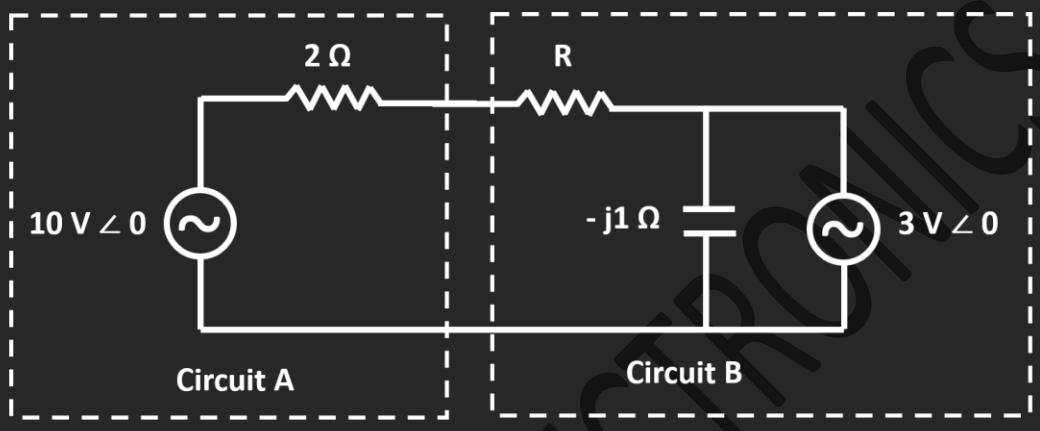
Quiz#261

For the given circuit, assume that both voltage sources are in a phase. The value of R for which the maximum power will be transferred from the circuit A to B is



A) 0.8 Ω

B) 1.4 Ω

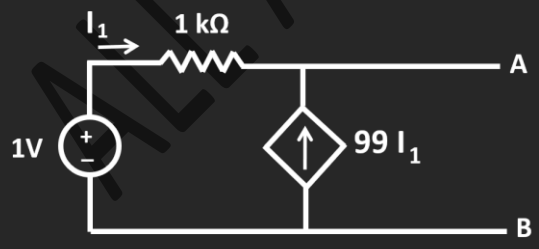
C) 2 Ω

D) 2.8 Ω

Answer: https://youtu.be/q9xdgPQ5mgQ

Quiz#105

For the network shown, Thevenin's equivalent voltage source and resistance are,



A) 1 mV and 10 Ω

B) 1 V and 1 kΩ

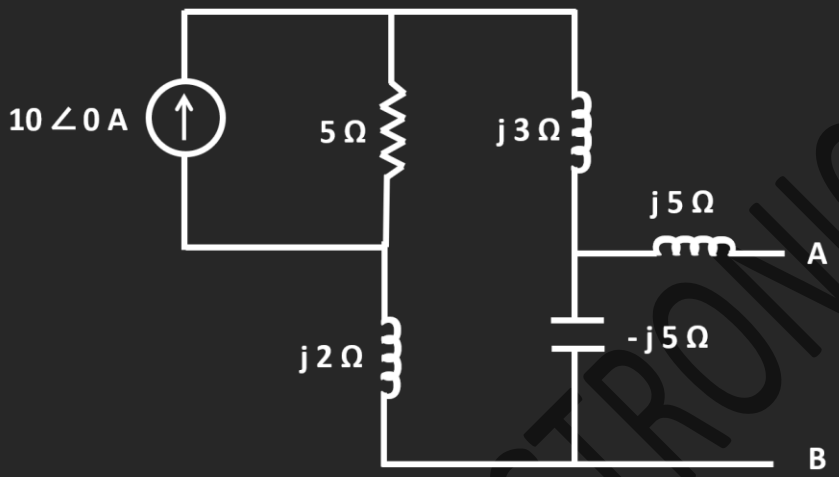
C) 1 mV and 1 kΩ

D) 1 V and 10 Ω

Answer: https://youtu.be/8TZyFMuGE6U

Quiz#242

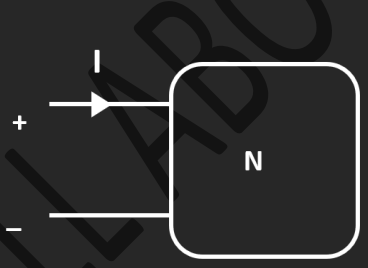
The Norton's equivalent current through terminal AB is _____

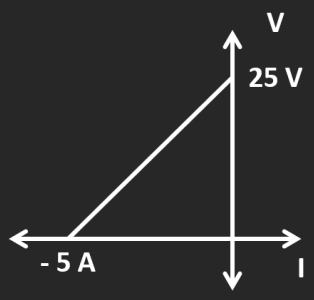


Answer: https://youtu.be/Vzd2S7x2mrM

Quiz#233

The voltage current relationship feeding the network N is shown in the figure. The Norton's equivalent of the network N will have I_N and R_N as





A) 5 A and 25 Ω

C) 5 A and 5 Ω

B) - 5 A and 5 Ω

D) - 5 A and - 5 Ω

Answer: https://youtu.be/o5Um42EbTZ8

Quiz#230

A voltage source delivers 4 A to the load when load is 5 Ω and 2 A when the load is 20 Ω. The maximum power which can be delivered by the source is

A) 40 W

C) 90 W

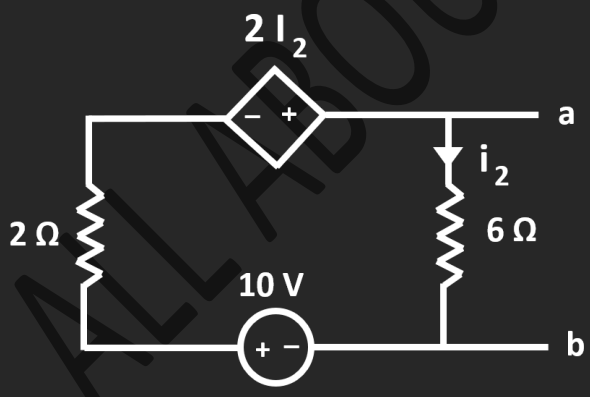
B) 80 W

D) 100 W

Answer: https://youtu.be/6Imf6fHEBjA

Quiz#228

For the given circuit, the Thevenin's equivalent resistance across the terminal ab is



A) 1 Ω

B) 2 Ω

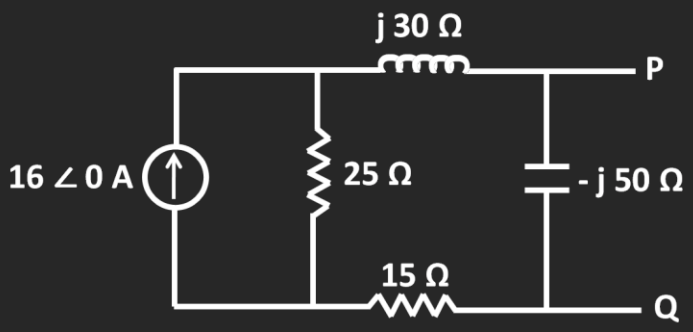
C) 3 Ω

D) 4 Ω

Answer: https://youtu.be/V5glnRtiOjw

Quiz#145

For the given circuit, the Norton's equivalent current (in amperes) with respect to terminals P and Q is



A) 6.4 – j 4.8

B) 6.56 – j 7.87

C) 10 + j 0

D) 16 + j 0

Answer: https://youtu.be/mOtL1jzyzlw

Quiz#196

For the maximum power transfer between the two cascaded sections of the electrical network, the relationship between the output impedance Z_1 of the first section to the input impedance Z_2 of the second section is

A) $Z_2 = Z_1$

B) $Z_2 = -Z_1$

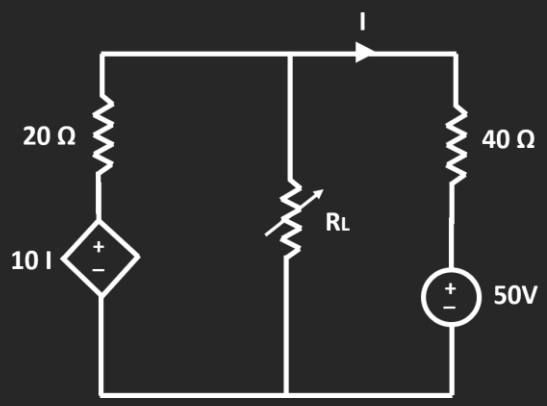
C) $Z_2 = Z_1^*$

D) $Z_2 = -Z_1^*$

Answer: https://youtu.be/95Fgx64zybc

Quiz#169

For the given circuit, find the value of load resistor RL for the maximum power transfer. And also calculate the maximum power.



A) RL = 20 Ω and Pmax = 1.25 W

B) RL = 16 Ω and Pmax = 1.56 W

C) RL = 20 Ω and Pmax = 31.25 W

D) RL = 40 Ω and Pmax = 15.6 W

Answer: https://youtu.be/Av1ec2LTqKk