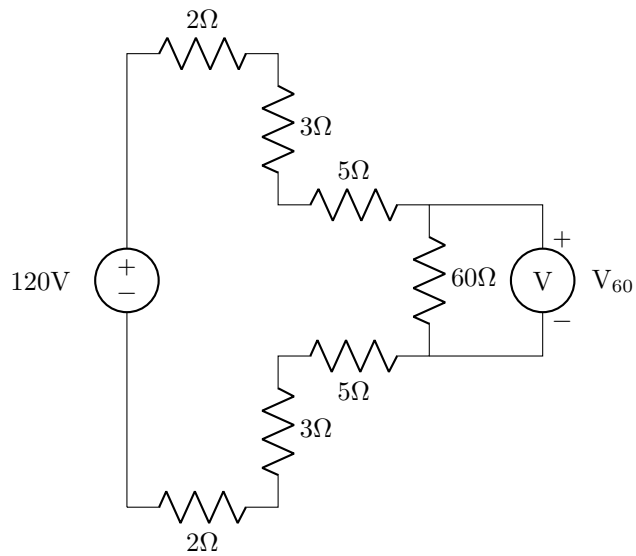


1. Analyze the following circuit:



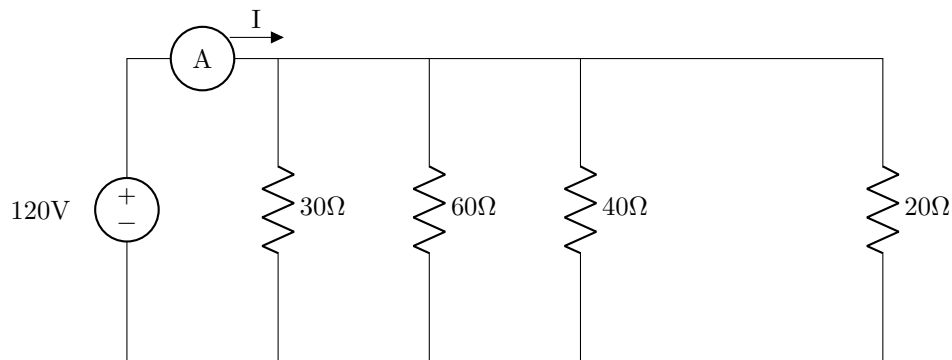
(a) What power does the source supply?

$P_s =$

(b) What does the voltmeter read?

$V_{60} =$

2. Analyze the following circuit:



(a) Find the current through and power absorbed by each resistor.

$I_{30} =$

$P_{30} =$

$I_{40} =$

$P_{40} =$

$I_{60} =$

$P_{60} =$

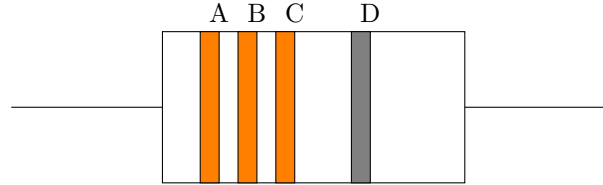
$I_{20} =$

$P_{20} =$

(b) What does the ideal ammeter read?

$I =$

3. Given the following 4-band resistor:



(a) What is the nominal resistance value? What would be the maximum possible resistance value (at the edge of maximum tolerance)?

$R_{\text{nominal}} =$

$R_{\text{max}} =$

(b) What would be the bands for a 150Ω resistor with 20% tolerance?

band 1 =

band 2 =

band 3 =

band 4 =

4. Given that the power absorbed by a resistor is $P = \frac{V^2}{R} = I^2 R$:

(a) How much voltage can you put across a 220Ω , 1W resistor?

$V =$

(b) How much current can you put through a 100Ω , 2W resistor?

$I =$