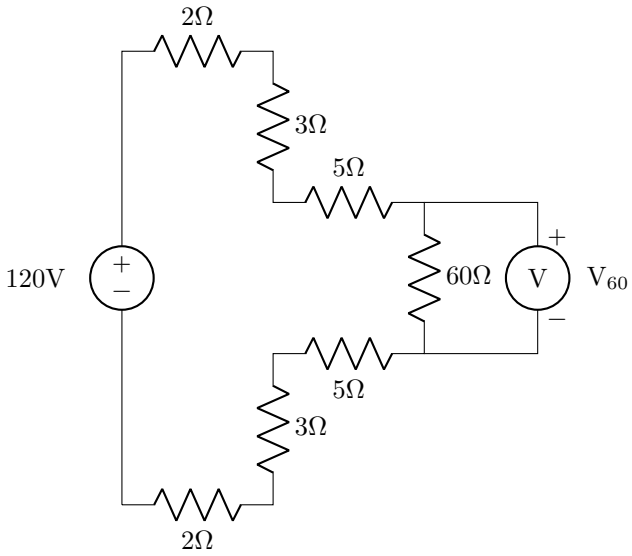
1. Analyze the following circuit. Note that the V with a circle around it represents a voltmeter or a digital multimeter measuring the voltage across the 60Ω resistor. It is NOT part of the circuit - only a measurement device.



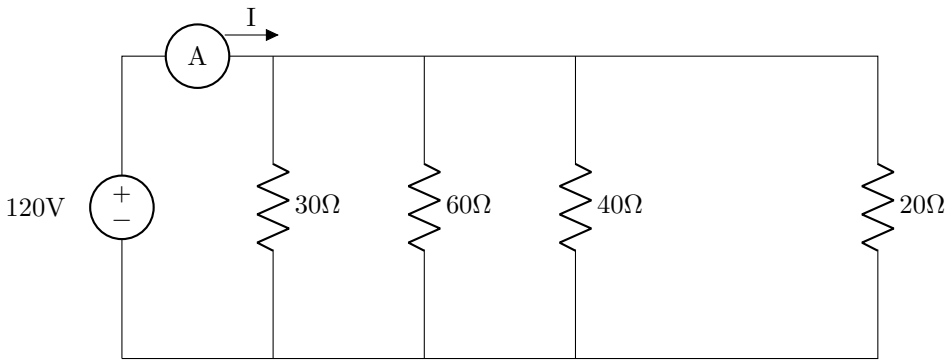
(a) What power does the source supply?

$P_s =$

(b) What does the voltmeter read?

$V_{60} =$

2. Analyze the following circuit. Note that the A with a circle around it represents an ammeter or a digital multimeter measuring the current at that point. It is NOT part of the circuit - only a measurement device.



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

I_{30} = P_{30} =

I_{40} = P_{40} =

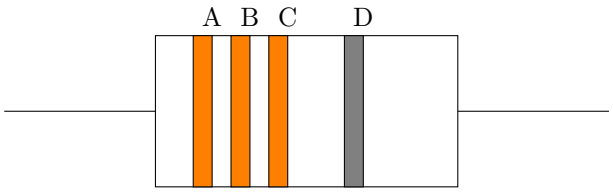
I_{60} = P_{60} =

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)?

$R_{nominal}$ = R_{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 $P = \frac{V^2}{R} = I^2R$:

(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 =