TI-RSLK™ MAX
Texas Instruments Robotics System Learning Kit
Module 2
Quiz: Voltage, Current and Power
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**Q1 Resistors**
What is the equivalent resistance of R1 in parallel with R2? What is the equivalent resistance of R1 in series with R2?

![Resistors Diagram]

**Q2 Ohm’s Law**
What is the relationship between voltage and current in a resistor?

![Ohm’s Law Diagram]

**Q3 Power**
What happens when 2V is placed across a 5Ω resistor rated at ¼ watt?

![Power Diagram 1]

**Q4 Power**
What happens when 10V is placed across a 1kΩ resistor rated at ¼ watt?

![Power Diagram 2]

**Q5 Capacitor**
What is the relationship between voltage and current in a capacitor?

![Capacitor Diagram]

**Q6 Cutoff frequency**
What is the cutoff frequency of this circuit in terms of R and C?

![Cutoff Frequency Diagram]

**Q7 LED**
The HLMP-4717 yellow LED runs at 1.8 V and 2 mA. The Luminous Efficacy is 500 lumens/watt. What is the brightness in lumens?
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