

## Technician Exam Power Problems (Subelement topic T5C)

T5C09 - How much power is being used in a circuit when the applied voltage is 13.8 volts DC and the current is 10 amperes?

Power equals Voltage multiplied by Current

$$P = E \times I = 13.8 \text{ V} \times 10 \text{ A} = 138 \text{ W}$$

T5C10 - How much power is being used in a circuit when the applied voltage is 12 volts DC and the current is 2.5 amperes?

Power equals Voltage multiplied by Current

$$P = E \times I = 12 \text{ V} \times 2.5 \text{ A} = 30 \text{ W}$$

T5C11 - How many amperes are flowing in a circuit when the applied voltage is 12 volts DC and the load is 120 watts?

Current equals Power divided by Voltage

$$I = P / E = 120 \text{ W} / 12 \text{ V} = 10 \text{ A}$$