## Answer on Question #57253 - Chemistry - General Chemistry

**Question:**

Imagine you have a spool of 10 AWG copper wire that weighs 585 g. 10 AWG wire has a diameter of 0.1019 inches and copper has a density of 8.96 g/cm3. Determine the length of the wire (cm).

**Solution:**

$$V = \frac{585g}{8.96g/cm^3} = 65.30cm^3$$

$$S_{section} = \pi r^2 = 3.14 * 0.26cm * 0.26cm = 0.21cm^2$$

$$l = \frac{S}{V} = \frac{65.30cm^3}{0.21cm^2} = 310.95cm$$

**Answer:** 310.95cm