92/100

1a.) The purpose is to plot ozone density vs altitude.
b.) The experiment will be performed by launching a balloon with a UV sensor as the balloon goes up the UV sensor collects the intensity of UV as a function of altitude. Using math and know relationships the data collected can determine ozone density vs altitude.
c.) Ozone density is important because ozone is what prevents various cancers.
d.) The mission is to accurately provide data about the ozone layer as altitude increases to see the how it affects UV intensity.
2.)
a) false
b)true
c) false
d)true
3a) 2.053 v
b) 4.106 k ohms
c) 46.18 Celsius

-3 -3

OTHERWISE, YOU ARE MEASURING UV & DRAWING CONCLUSIONS ABOUT THE OZONE FROM THAT.

2) a

$$\frac{V_{out}}{V_{in}} = \frac{ADC}{1023} \Rightarrow \frac{423}{1023} \times 5 = 2.053V$$

b

$$R_2\left(\frac{V_{in}}{V_{out}} - 1\right) = 10E3\left(\frac{2.053}{5} - 1\right)$$

$$= 4.1063k\Omega$$

$$X = (T_C - T_A)\frac{R_B - R_A}{R_C - R_A} + T_A$$

$$= 46.18^{\circ}C$$

#4 <NORMPDF> REQUIRES A TOOLKIT YOU MIGHT NOT ALWAYS HAVE. IF I GIVE YOU THE STEPS, I EXPECT YOU TO FOLLOW THEM.

#5 YLABEL -2 <INV> IS BECOMING OBSOLETE INSTEAD $A^{-1}B = <A\backslash B>$ $AB^{-1} = <A/B>$

<V=[];> CREATES AN EMPTY MATRIX, PUT THIS INSIDE THE <FOR> LOOP SINCE YOU'RE OVERWRITING IT ANYWAY