#Finds the Excel workbook with the data workbook = xlrd.open\_workbook('Homework\_13.xlsx') #Finds the specific Excel Sheet with the Data--when it's named Data worksheet= workbook.sheet\_by\_name('Data')

#This finds the last column having a value in it. This helps us to know how many nodes are in the network.

last\_column = worksheet.ncols

#We set the number of nodes equal to the number of non-empty columns num\_nodes = last\_column - 1

#Initialize the V-set V = []

#For loop to add nodes to the V-Set based on the number of nodes for i in range(num\_nodes):

V.append(i+1)

#Initialize the set of edges E E = []

#Initialize the cost parameter c={}

#These for loops go through the table of data to #figure out which edges are in the network #If the edge exists, then we add that edge to the set E #And, we set the set the cost of the edge #equal to the value in the cell for i in V:

for j in V:

if worksheet.cell(j, i).value != "--":

#Only consider when i < j since this is the way to define #the set of edges if i < j:

#set the cost of (i,j) equal to the integer value in the cell c[i,j] = int(worksheet.cell(j,i).value)

#Adds (i,j) to the set E E.append((i,j))