Computing Prelim 2019

Paper 2 Solutions

	A	B	C	D	E	F	G	H
1	**Red Resort Occupancy for Month of November**							
2								
3	**Customer First Name**	**Customer Last Name**	**Number of Nights**	**Room Type**	**Member**	**Cost**	**Discount**	**Total Cost**
4	Amber	Goh	2	Basic	Yes	=HLOOKUP(D4,$B$25:$F$26,2,TRUE)*C4	=IF(E4="Yes","20%","No")	=IF(G4="20%",0.8*F4,F4)
5	Arya	Jones	5	Deluxe	No	=HLOOKUP(D5,$B$25:$F$26,2,TRUE)*C5	=IF(E5="Yes","20%","No")	=IF(G5="20%",0.8*F5,F5)
6	Daniel	Lu	2	Family	Yes	=HLOOKUP(D6,$B$25:$F$26,2,TRUE)*C6	=IF(E6="Yes","20%","No")	=IF(G6="20%",0.8*F6,F6)
7	David	Lu	3	Suite	Yes	=HLOOKUP(D7,$B$25:$F$26,2,TRUE)*C7	=IF(E7="Yes","20%","No")	=IF(G7="20%",0.8*F7,F7)
8	David	Ferrarin	7	Deluxe	Yes	=HLOOKUP(D8,$B$25:$F$26,2,TRUE)*C8	=IF(E8="Yes","20%","No")	=IF(G8="20%",0.8*F8,F8)
9	Dylan	Chang	8	Premium	No	=HLOOKUP(D9,$B$25:$F$26,2,TRUE)*C9	=IF(E9="Yes","20%","No")	=IF(G9="20%",0.8*F9,F9)
10	Joy	Chua	3	Basic	No	=HLOOKUP(D10,$B$25:$F$26,2,TRUE)*C10	=IF(E10="Yes","20%","No")	=IF(G10="20%",0.8*F10,F10)
11	Malcom	Tan	6	Family	No	=HLOOKUP(D11,$B$25:$F$26,2,TRUE)*C11	=IF(E11="Yes","20%","No")	=IF(G11="20%",0.8*F11,F11)
12	Mena	Jan	7	Premium	Yes	=HLOOKUP(D12,$B$25:$F$26,2,TRUE)*C12	=IF(E12="Yes","20%","No")	=IF(G12="20%",0.8*F12,F12)
13	Michael	Khan	5	Premium	No	=HLOOKUP(D13,$B$25:$F$26,2,TRUE)*C13	=IF(E13="Yes","20%","No")	=IF(G13="20%",0.8*F13,F13)
14	Michael	Kaur	2	Deluxe	Yes	=HLOOKUP(D14,$B$25:$F$26,2,TRUE)*C14	=IF(E14="Yes","20%","No")	=IF(G14="20%",0.8*F14,F14)
15	Mollie	Cooke	4	Family	No	=HLOOKUP(D15,$B$25:$F$26,2,TRUE)*C15	=IF(E15="Yes","20%","No")	=IF(G15="20%",0.8*F15,F15)
16	Pascal	Han	3	Family	No	=HLOOKUP(D16,$B$25:$F$26,2,TRUE)*C16	=IF(E16="Yes","20%","No")	=IF(G16="20%",0.8*F16,F16)
17	Ken	Phillips	5	Deluxe	Yes	=HLOOKUP(D17,$B$25:$F$26,2,TRUE)*C17	=IF(E17="Yes","20%","No")	=IF(G17="20%",0.8*F17,F17)
18	Venkhat	Singh	4	Premium	Yes	=HLOOKUP(D18,$B$25:$F$26,2,TRUE)*C18	=IF(E18="Yes","20%","No")	=IF(G18="20%",0.8*F18,F18)
19								
20	**Number of Customers**		=COUNTA(A4:A18)			**Average Revenue**		=AVERAGE(H4:H18)
21	**Number of Members**		=COUNTIF(E4:E18,"Yes")					
22								
23								
24		**Room Type**						
25		**Basic**	**Family**	**Deluxe**	**Premium**	**Suite**		
26	**Cost per Night**	82	108	115	120	200		
27								

```
result = []

limit = int(input("Range of numbers to be tested is 1 to n inclusive. State
your n: "))
print("The program is now checking for disarium numbers from 1 to
{}...".format(limit))

for number in range(1, limit+1):

    remaining = 0
    sum_digits = 0
    number_str = str(number)
    counter = len(number_str)
    test_number = number

    while test_number > 0:
        remaining = test_number%10
        sum_digits += (remaining**counter)
        test_number = test_number//10
        counter -= 1

    if sum_digits == number:
        result.append(number)

print("The disarium numbers between 1 to {} are {}: ".format(limit, result))
```