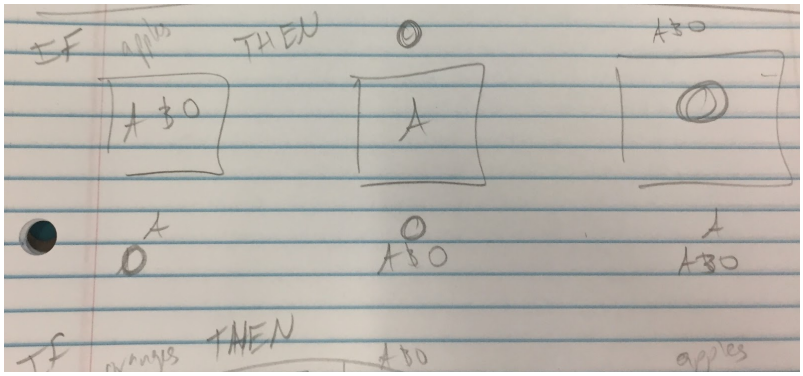
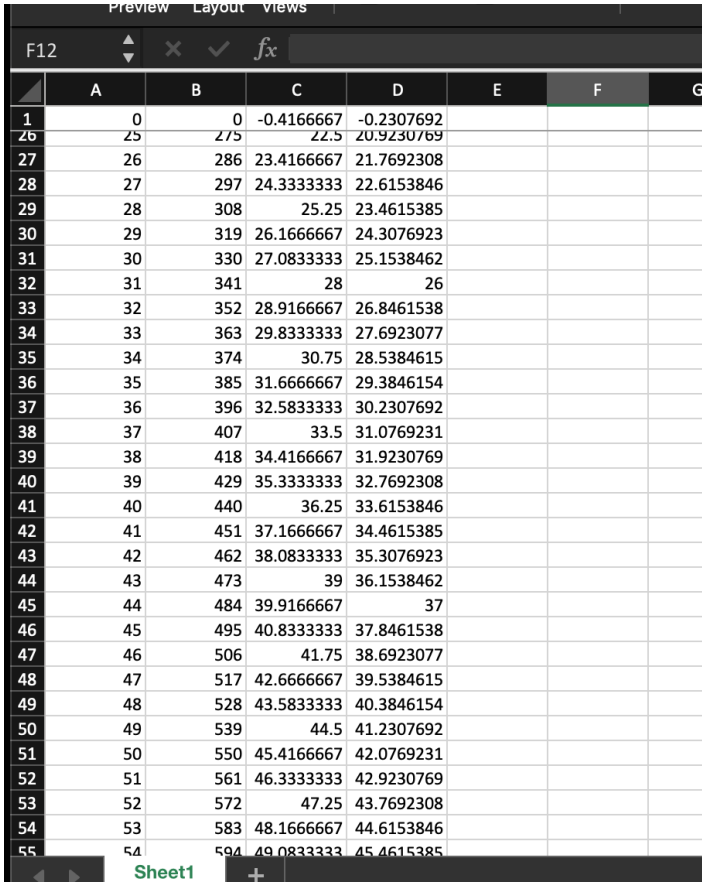
Diego Garza

Assignment 0

1. I would ask the extraterrestrial to draw a vertical line on a flat plane, like a loose sheet of paper. I would explain that there are now two sections of that paper. As humans, we use one side as left and the other side as right. Symmetrical things, like bodies, have a left and right side so that we can know how best to name things. As humans, we have a left and right leg.
2. I am honestly not sure. Maybe a way to find out would be to track the gasoline from when it leaves the refinery for commercial use. Find all companies who sell gasoline to these gas stations, then count from there.
3. I get a fruit from the one that is labeled apples and oranges. Since all are mislabeled, this box must have either all apples or all oranges. The one labeled oranges is mislabeled, so it must either be all apples or apples and oranges. The one labeled apples is mislabeled, so it must either be all oranges or apples and oranges. Say I get apples. Then, I know that the one labeled oranges is not all apples (because the one I picked from is all apples), so it must be apples and oranges. Thus, the one labeled apples would be oranges. If I get oranges, then the one labeled apples is apples and oranges, so the one labeled oranges will be all apples.



4. In my mind, I treat it as a grid as to which each grid square corresponds to one quarter. So I thought that if it was a table that would have an odd number of quarters, it would be good to first. If even, then go second. Now if the table's square, the side of the table can be described by one of two expressions: 2d or 2d+1. If being able to be described by 2d, then go second. If being able to be described by 2d+1, then go first.
5. Okay this one took a while. So the amount coins has to be a multiple of 11. I opened up dat boi Excel and I had a column for my x values and a column for my 11*x values. So I made the list of 11*x values all the way just before 1000. We also know that when the value of 11*x is divided by 12 people, there is a remainder of 5. So, the integer right before that should be shown as ((11*x)/12)-(5/12). Same with the 13 and I get ((11*x/13)-(3/13)). From here, I scrolled down the list of 11*x values until there was one where all values were integers. Ended up being 341 coins.



Preview Layout Views

F12

	A	B	C	D	E	F	G
1	0	0	-0.4166667	-0.2307692			
26	25	275	22.5	20.9230769			
27	26	286	23.4166667	21.7692308			
28	27	297	24.3333333	22.6153846			
29	28	308	25.25	23.4615385			
30	29	319	26.1666667	24.3076923			
31	30	330	27.0833333	25.1538462			
32	31	341	28	26			
33	32	352	28.9166667	26.8461538			
34	33	363	29.8333333	27.6923077			
35	34	374	30.75	28.5384615			
36	35	385	31.6666667	29.3846154			
37	36	396	32.5833333	30.2307692			
38	37	407	33.5	31.0769231			
39	38	418	34.4166667	31.9230769			
40	39	429	35.3333333	32.7692308			
41	40	440	36.25	33.6153846			
42	41	451	37.1666667	34.4615385			
43	42	462	38.0833333	35.3076923			
44	43	473	39	36.1538462			
45	44	484	39.9166667	37			
46	45	495	40.8333333	37.8461538			
47	46	506	41.75	38.6923077			
48	47	517	42.6666667	39.5384615			
49	48	528	43.5833333	40.3846154			
50	49	539	44.5	41.2307692			
51	50	550	45.4166667	42.0769231			
52	51	561	46.3333333	42.9230769			
53	52	572	47.25	43.7692308			
54	53	583	48.1666667	44.6153846			
55	54	594	49.0833333	45.4615385			

Sheet1

6. Computer science can be used in plenty of things, as it has become much more interdisciplinary. With anything that needs calculations completed, like physics or economics, it makes things go much more quickly. It can have applications that can help society like helping with muscle and physical stimulation for those who are paralyzed. Computer science also helps advance artificial intelligence, which is the future of humanity.
7. I think that to write “good code” the code should cover different categories. ‘Good’ code has to be as small and efficient as possible. It should be so that one does not have to take long to understand the logic behind it.
8. My prior experience in computer science is very limited. I simply had some HTML coding experience in tenth grade. I also tried codecademy and khan academy online, but nothing too advanced.