Course	ENGR 13300	Semester	*Fall 2024*
Assignment Name	*HW 5 py1*	Section	*18*
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Problem Number	Equation	MS Excel Calculations	Python Calculations	Differences
1	a = 5	Cell A1: 5	a = 5	One is a variable while other is a space
2	$b = a^{1/3}$	Cell A2: =POWER(A1,1/3)	b = a ** (1/3)	Power function vs ** function
3	$c = \sin(\sqrt{b})$	Cell A3: =SIN(SQRT(A2))	c = math.sin(math.sqrt(b))	There isn't major difference besides the data reference method
4	$d = \lfloor -90.5 \rfloor$	Cell A4: =FLOOR(-90.5,1)	d = math.floor(-90.5)	One needs to specify the significance.
5	e = 254 mod 66	Cell A5: =MOD(254, 66)	e = 254%66	MOD is a formula but % is a operator

Problem Number	Equation	MS Excel Calculations	Python Calculations	Differences
6	Find the mean	=AVERAGE(range)	avg = statistics.mean(testList)	Average vs Mean
7	Find the median	=MEDIAN(range)	median = statistics.median(testList)	They are the same except one is a list one is a range of values
8	Find the maximum	=MAX(range)	maxNum = max(testList)	^
9	Find the range	=MAX(range) – MIN(range)	range = max(testList)-min(testList)	^
10	Find the standard deviation	=STDEV.S(range)	standard_deviation = statistics.stdev(testList)	Excel can choose Sample or population while python

				defaults to sample

Task B:

1, filled out the 5th column already

2, I used print to test my values, most of the functions I used for math and statistics were imported in from python libraries.

3, There is no major difference between the syntax of python and excel besides the capitalization, however, python will return a data type while excel has no data types.