ENGR 13300 Fall 2020

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Section number	
Assignment	Ex3_Ind_Task 3

I/We have not used material obtained from any other unauthorized source, either modified or unmodified. Neither have I/we provided access to my/our work to another.
The solution I/we am/are submitting is my/our own original work.

Problem Description	we are to calculate the descriptive statistics of the data given and create a histogram.

Input Section:

Calculation Section:	
min	=MIN(A16:A115)
max	=MAX(A16:A115)
range	=F17-F16
mean	=AVERAGE(A16:A115)
median	=MEDIAN(A16:A115)
mode	=MODE(A16:A115)
variance	=VAR(A16:A115)
SE	=STDEV(A16:A115)

Histogram Calculation:	
number of bins	=ROUNDUP(SQRT(COUNT
width of bins	=F18/F26

Output Section:

If the required minimum shear strength is 780 kip per square inch (si), should the company buy the welding robot? Justify your answer using the data.

Value in megapascals/6.89475728 = value in ksi. If we convert cell F16 to ksi, it would be 772.9 ksi. So no, I would recommend the company to not buy the robot because the minimum shear strength of this robot is 772.9 ksi and that does not meet the required minimum.

Input data values:

5408
5420
5407
5463
5431
5429
5469
5408
5475
5401
5416
5481
5442
5446
5377
5453
5376
5487
5454
5422
5388
5416
5375
5354
5459
5382
5409
5421
5422
5357
5459
5406
5416
5388
5445
5444
5435
5457
5429
5466
5399
5445
5381
5401
5458
5383
5391
5436
5425
5411
5485
5401
5477
5454
5388
5399
5431
5407
5447
5453
5388
5431
5416
5385
5329
5428
5372
5440
5431
5440
5473
5418
5481
5413
5390
5422
5423
5465
5387
5406
5399
5448
5441
5427
5440
5342
5435
5366
5412
5421
5482
5452
5387
5430
5384
5396
5406
5420
5462
5418

SPOT WELD SHEAR STRENGTH