Drill – Unit 3 lesson 1

1. Date set [14,12,11,10,8,6,8]
   1. Mean: (14+12+11+10+8+6+8)/7 =9.86
   2. Median: 10 is in the middle 3 values above and 3 bellow
   3. Mode: 8 appears twice while the other only once
   4. Variance: ((14-9.86)^2+(12-9.86)^2+(11-9.86)^2+(10-9.86)^2+(8-9.86)^2+(6-9.86)^2+(8-9.86)^2)/(7-1)=6.41
   5. Standard deviation: √(((14-9.86)^2+(12-9.86)^2+(11-9.86)^2+(10-9.86)^2+(8-9.86)^2+(6-9.86)^2+(8-9.86)^2)/7)=2.73
   6. Standard error: 2.73/√7=1.03
2. I would choose the mean and standard deviation as those 2 numbers are describing the best the range of the data set
3. Date set [14,12,11,10,8,7,8]
   1. Mean: (14+12+11+10+8+7+8)/7 =10 (Changed)
   2. Median: 10 is in the middle 3 values above and 3 bellow (Not changed)
   3. Mode: 8 appears twice while the other only once (Not changed)
   4. Variance: ((14-10)^2+(12-10)^2+(11-10)^2+(10-10)^2+(8-10)^2+(7-10)^2+(8-10)^2)/(7-1)=5.43 (Changed)
   5. Standard deviation: √(((14-10)^2+(12-10)^2+(11-10)^2+(10-10)^2+(8-10)^2+(7-10)^2+(8-10)^2)/7)=2.52 (Changed)
   6. Standard error: 2.52/√7=0.95 (Changed)
4. Date set [14,12,11,10,8,7,1]
   1. Mean: (14+12+11+10+8+7+8)/7 =9
   2. Median: 10 is in the middle 3 values above and 3 bellow
   3. Mode: no unique mode, all values appears once
   4. Variance: ((14-9)^2+(12-9)^2+(11-9)^2+(10-9)^2+(8-9)^2+(7-9)^2+(1-9)^2)/(7-1)=15.43
   5. Standard deviation: √(((14-9)^2+(12-9)^2+(11-9)^2+(10-9)^2+(8-9)^2+(7-9)^2+(1-9)^2)/(7-1)/7)=4.24
   6. Standard error: 2.52/√7=1.63
   7. I would still choose the mean and standard deviation as those 2 numbers still describe the best the range of the data set
5. Based on those numbers only I don’t have all the needed information for precise assessment but if I had to predict I would choose the median (20%) as most of the numbers are around this value except one out layer