

#9 (Total 25 Points)

[1]

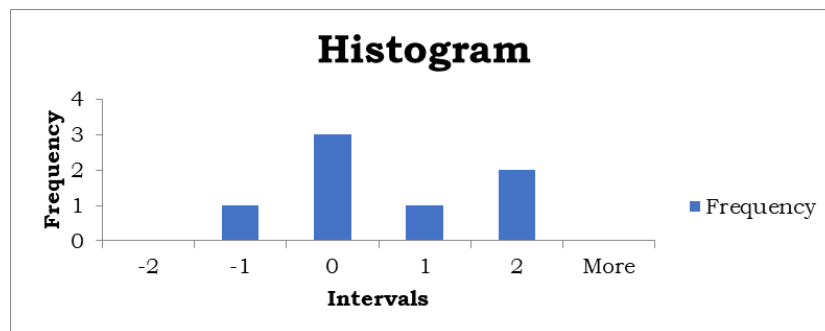
Day	# Remote	z
Monday	20	-1,20
Tuesday	41	1,03
Wednesday	35	0,39
Thursday	29	-0,24
Friday	22	-0,99
Saturday	45	1,43
Sunday	27	-0,45

$$\bar{x} = \frac{1}{n} * \sum_{i=1}^n x_i = \frac{1}{7} * (20 + \dots + 27) = 31,29$$

$$s^2 = \frac{1}{7-1} * [(20 - 31,29)^2 + \dots + (27 - 31,29)^2] = 88,90$$

$$\Rightarrow s = 9,43$$

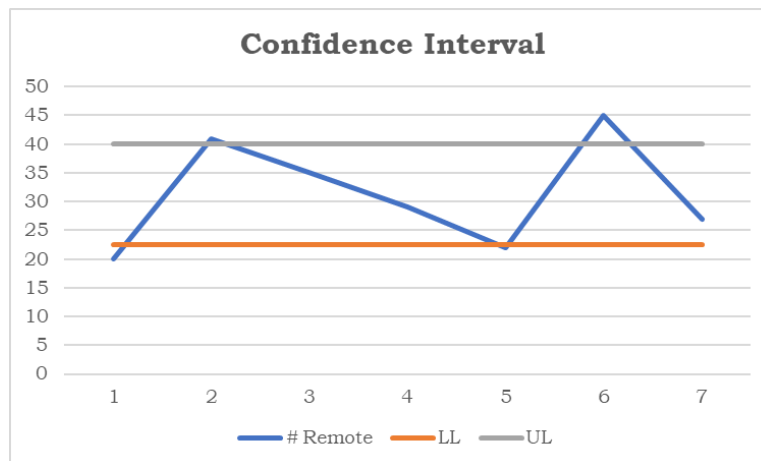
Intervals	Frequency
-2	0
-1	1
0	3
1	1
2	2
More	0



If you combine the second and the third interval, we get an approximately distribute set of data.

[2]

$$\bar{x} \pm t_{(\alpha/2)}^{[n-1]} * \left(\frac{s}{\sqrt{n}} \right) = 31,29 \pm 2,45 * \frac{9,43}{\sqrt{7}} = [22,56; 40,02]$$



[3]

Most statistical techniques assume the normal distribution. Therefore, the assumption must be checked.