

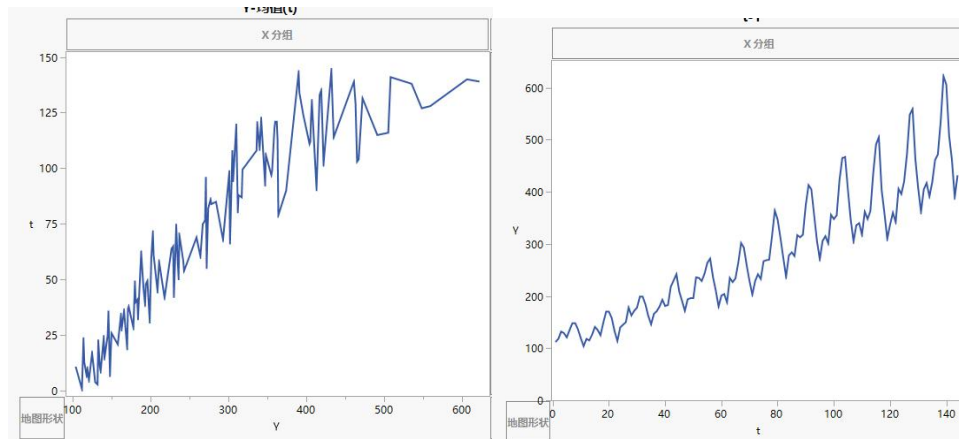
Q1

According to the graph, this is a increasing trend. Ans it is a annual seasonality

So:

Does the time series have a trend? Yes

Does it have seasonality? Yes



Q2

Mean	280.2986111	lag	Auto colleration
		0	1
		1	0.960194648
t	Y	2	0.895675311
1	112	3	0.837394765
2	118		
3	132		
4	129		
5	121		
6	135		

Picture is not in Full. The excel file will come with the submission

Lag 3 = 0.837394765

Q3

t	Y	a=0.2	Error	a=0.6	Error	RMSE a=0.2	RMSE a=0.6
1	3.3						
2	3.6	3.3	0.3	3.3	0.3	0.943751069	0.772280475
3	2.9	3.36	0.46	3.48	0.58		
4	1.9	3.268	1.368	3.132	1.232		

Picture is not in Full. The excel file will come with the submission

$\alpha = 0.6$ is better