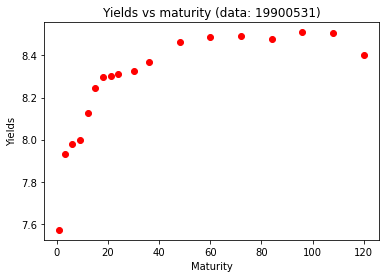
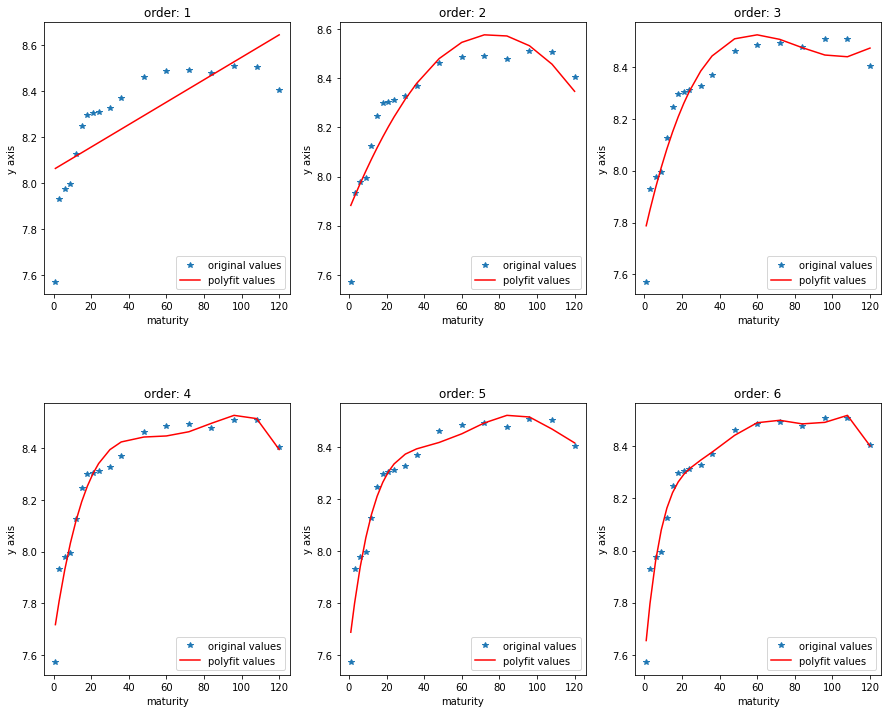
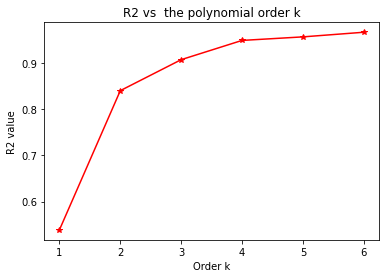
**Problem 3 (Residue analysis)**

1. Generate a scatter plot of the yields vs maturity. Comment on the figures.

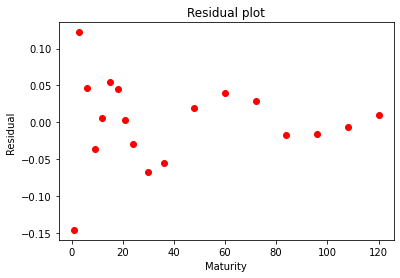


1. You want to fit a polynomial regression model to the data. Since you don't know the order you need, you fit six polynomial models, with orders from 1 to 6. Plot the 𝑅2 vs the polynomial order 𝑘. Comment on the result.





1. For the 4th-order polynomial model, draw a residual plot (vs maturity). Comment on it.



1. Draw a histogram and a quantile-quantile (Q-Q) plot of the residuals. Comment on it.