Original: Airline Passengers
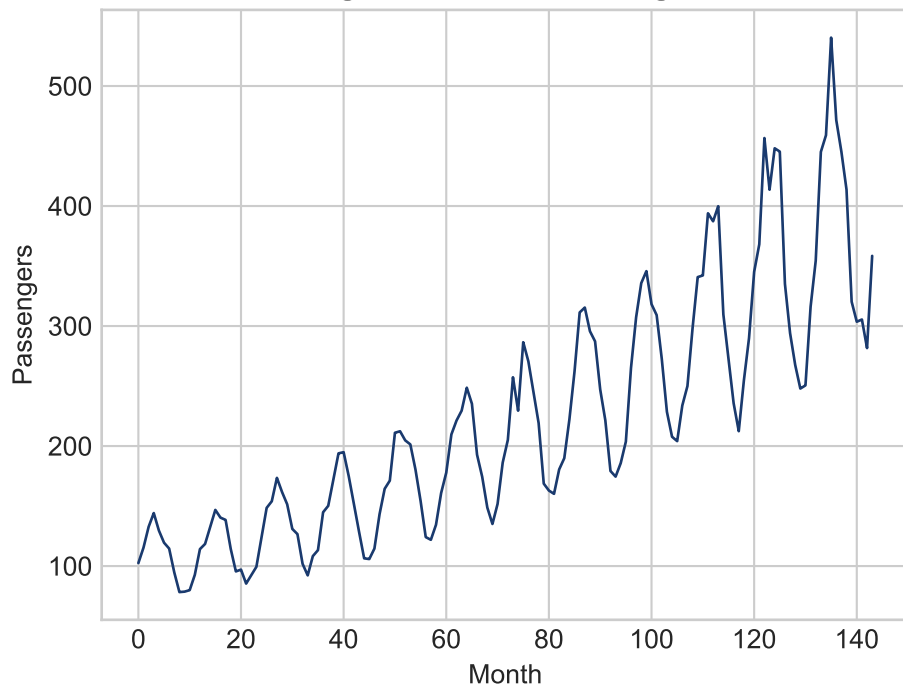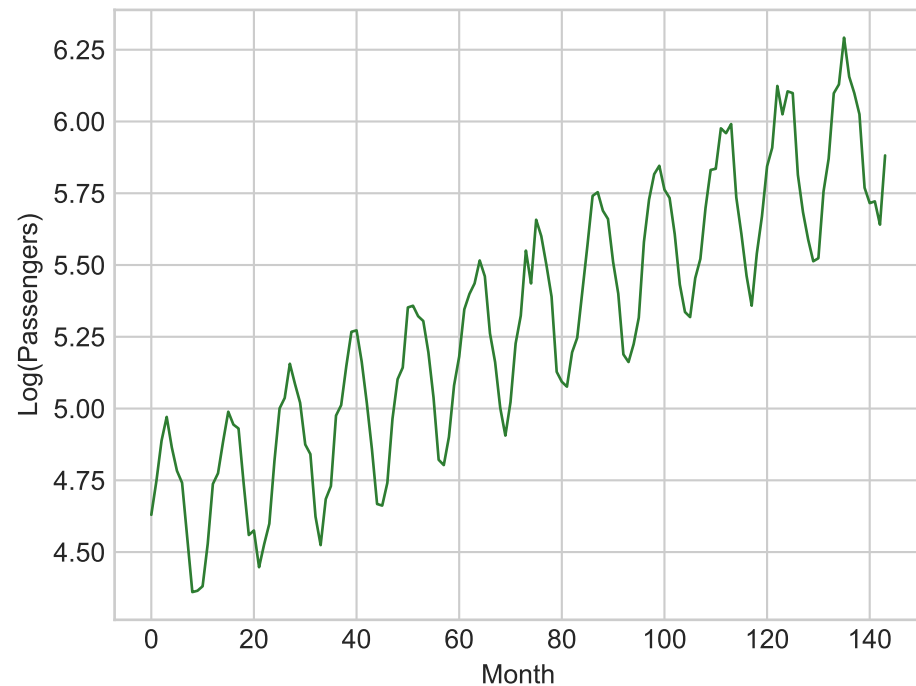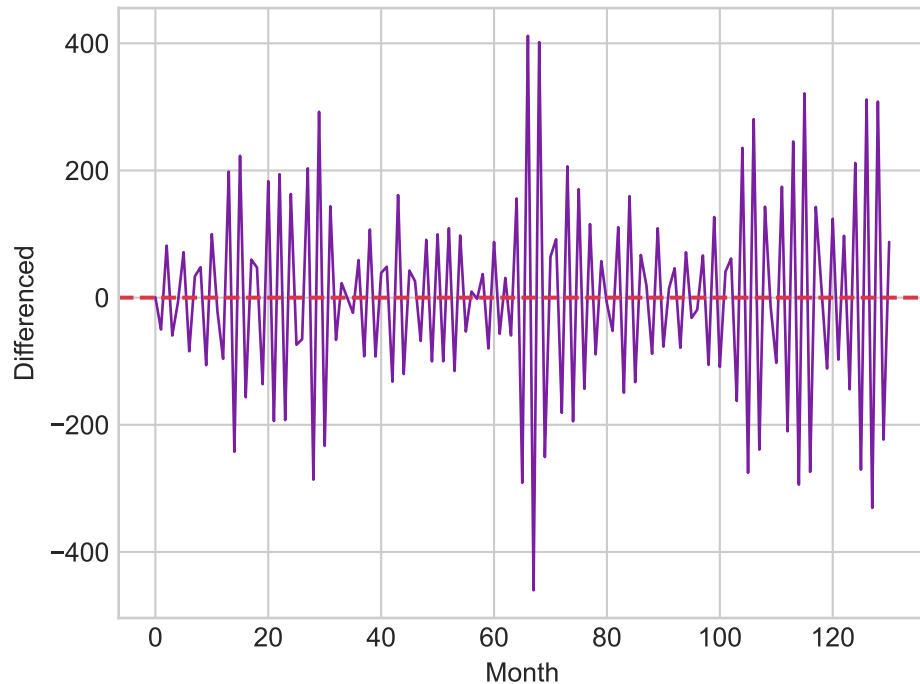
Log Transform: $\log(Y_t)$

$(1-L)(1-L^{12})\log Y_t$: **Stationary!**

The Airline Model

$$\text{SARIMA}(0, 1, 1) \times (0, 1, 1)_{12}$$

$$(1-L)(1-L^{12})Y_t = (1+\theta L)(1+\Theta L^{12})\varepsilon_t$$

Only 2 parameters: θ and Θ

Why famous?

• Fits many seasonal economic series remarkably well
• Extremely parsimonious (just 2 parameters)
• Box & Jenkins (1970) airline passenger data