

[1] In Figure 1,  $n = 100$  observations from a model of the form  $Y_t = m_t + X_t$  are displayed. Through eyeballing, choose the order  $p$  of the polynomial  $b_0 + b_1 t + \cdots + b_p t^p$  that adequately captures the trend  $m_t$  in this plot.

- (a)  $p = 0$                       (b)  $p = 1$                       (c)  $p = 2$                       (d)  $p = 3$                       (e) none of (a)–(d).

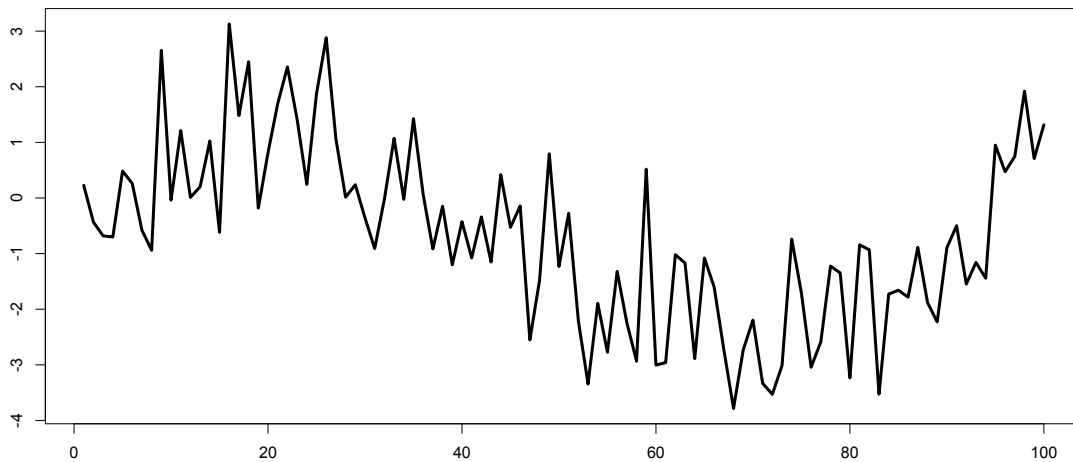


Figure 1: Realization from a time series model of the form  $Y_t = m_t + X_t$ .