$$R_t = 0.3 + 0.7R_{t-1} + a_t - 0.8a_{t-1} + 0.1a_{t-2}.$$

Consider $R_t = Z_t + b$, we have

$$Z_t + b = 0.3 + 0.7(Z_{t-1} + b) + a_t - 0.8a_{t-1} + 0.1a_{t-2},$$

or

$$Z_t = (0.3 - 0.3b) + 0.7Z_{t-1} + a_t - 0.8a_{t-1} + 0.1a_{t-2}.$$

Set $b = 1$, and we get Z_t follows $ARMA(1, 2)$.