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Submit a PDF file on UB learns with your final model used written out. For example your submission might look something like this:

$$y_t = \beta_0 + \beta_1 z_t + x_t$$

$$(1 - \phi B)x_t = (1 + \theta B^{52})w_t, \text{ where } z_t \text{ is the high temperature in week } t$$

For the given equation,

AR(1) Model Equation:

$$y_t = 14.412 + x_t(1 - 0.9609B) + (1 + \theta B^{52})w_t$$

Where:

y_t = Differenced ICNSA (Initial claims)

x_t = UNRATE (Unemployment rate)

14.412 = Estimated intercept coefficient

0.9609 = ϕ (AR(1) coefficient estimated by auto.arima)

B = Backshift operator (Lag 1)

θ = MA(52) coefficient

w_t = Error term

Seasonal MA Equation:

$$y_t = (1 + \theta B^{52})w_t$$

Where:

y_t = Differenced initial claims

θ = MA(52) coefficient

B⁵² = Lag of 52 periods

w_t = Error term

The full model is:

$$y_t = 14.412 + x_t(1 - 0.9609B) + (1 + \theta B^{52})w_t$$