This assignment has two parts. The first part is of the usual form, and the second part is our second "lab".

Part I

1. Express an MA(2) process as a state space model and derive the corresponding Kalman filter.

2. Repeat the above problem for stationary ARMA(2,1). Do specify V_0 in terms of γ_0, γ_1, σ_a^2, ϕ_1, ϕ_2, and θ as necessary, and do verify that $\Phi V_0 \Phi^T + A = V_0$.

Part II

The monthly totals of car drivers in Great Britain killed or seriously injured from Jan 1969 to Dec 1984 are given in `UKDriverDeaths`.

```
data(UKDriverDeaths); UKDriverDeaths
```

Compulsory wearing of seat belts was introduced on January 31, 1983.

Following the guidelines specified in HW5, Part II, and adding new tools you learned since then, find a model that you think best fits the data and present your analysis. Use the format as prescribed in HW5.