Stages of Arima Modelling

```
          ┌─────────────────────────┐
          │   Consider a general    │
          │      ARIMA Model        │
          └─────────────────────────┘
                       │
                       ▼
          ┌─────────────────────────┐
          │  Identify the appropriate│
  ┌──────▶│  degree of differencing if│
  │       │         needed          │
  │       └─────────────────────────┘
  │                    │
  │                    ▼
  │       ┌─────────────────────────┐
  │       │   Using ACF and PACF,   │
  │       │  find a tentative model │
  │       └─────────────────────────┘
  │                    │
No│                    ▼
  │       ┌─────────────────────────┐
  │       │  Estimate the parameters │
  │       │   of the model using    │
  │       │   appropriate software  │
  │       └─────────────────────────┘
  │                    │
  │                    ▼
  │       ┌─────────────────────────┐
  │       │   Perform the residual  │
  └───────│        analysis.        │
          │  Is the model adequate? │
          └─────────────────────────┘
                       │ Yes
                       ▼
          ┌─────────────────────────┐
          │    Start forecasting    │
          └─────────────────────────┘
```
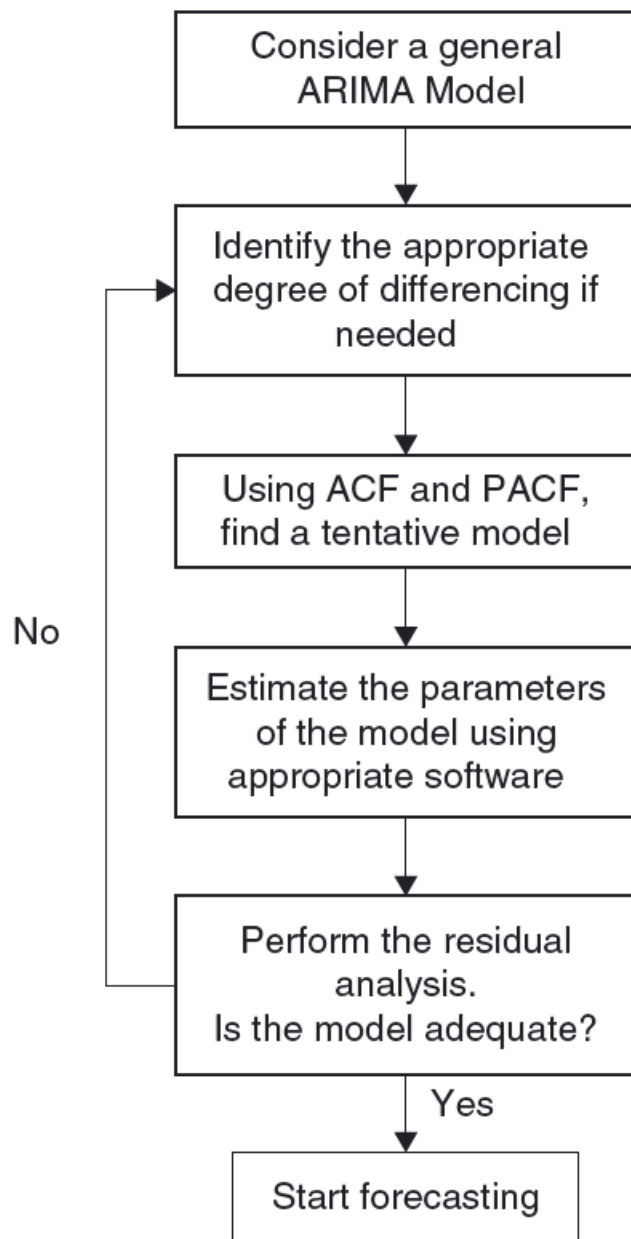
The most popular question type on Test 3

Determine the orders of p, d, and q of a tentative ARIMA(p, d, q) model that can be used for this data: