An ARIMA model can be viewed as a “filter” that tries to separate the signal from the noise, and the signal is then extrapolated into the future to obtain forecasts.

p is the parameter associated with the auto-regressive aspect of the model, which incorporates past values. For example, forecasting that if it rained a lot over the past few days, you state its likely that it will rain tomorrow as well.

d is the parameter associated with the integrated part of the model, which effects the amount of differencing to apply to a time series. You can imagine an example of this as forecasting that the amount of rain tomorrow will be similar to the amount of rain today, if the daily amounts of rain have been similar over the past few days.

q is the parameter associated with the moving average part of the model.