

# Comparison of acfs

## Comparison of artificial acfs

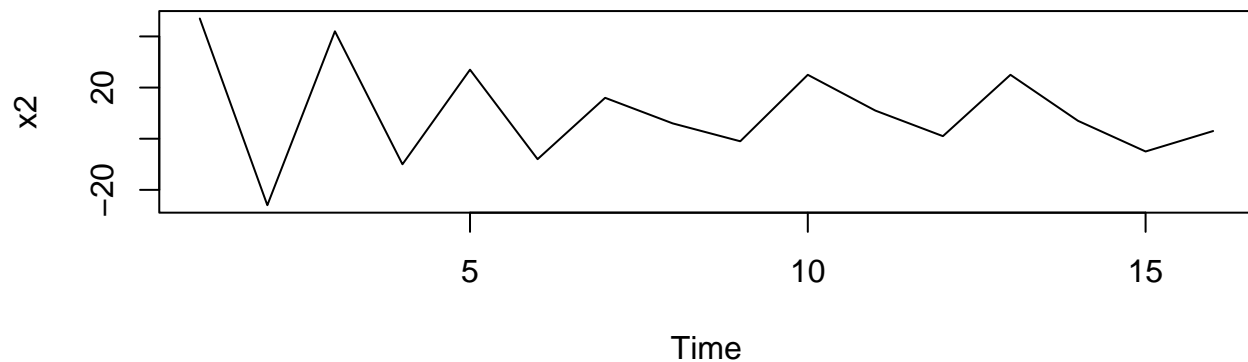
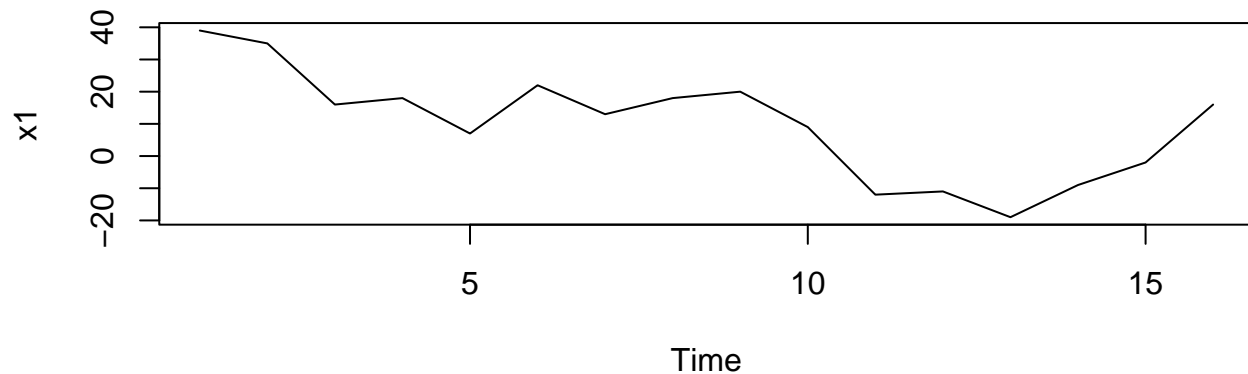
Consider the artificial series  $x_1$  and  $x_2$ :

```
x1 <- c(39, 35, 16, 18, 7, 22, 13, 18, 20, 9, -12, -11, -19, -9, -2, 16)
x2 <- c(47, -26, 42, -10, 27, -8, 16, 6, -1, 25, 11, 1, 25, 7, -5, 3)
```

For each series:

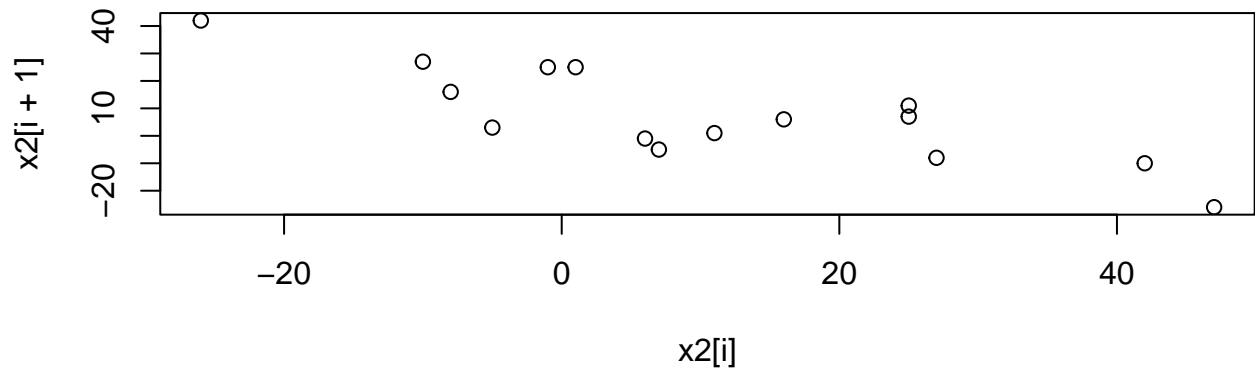
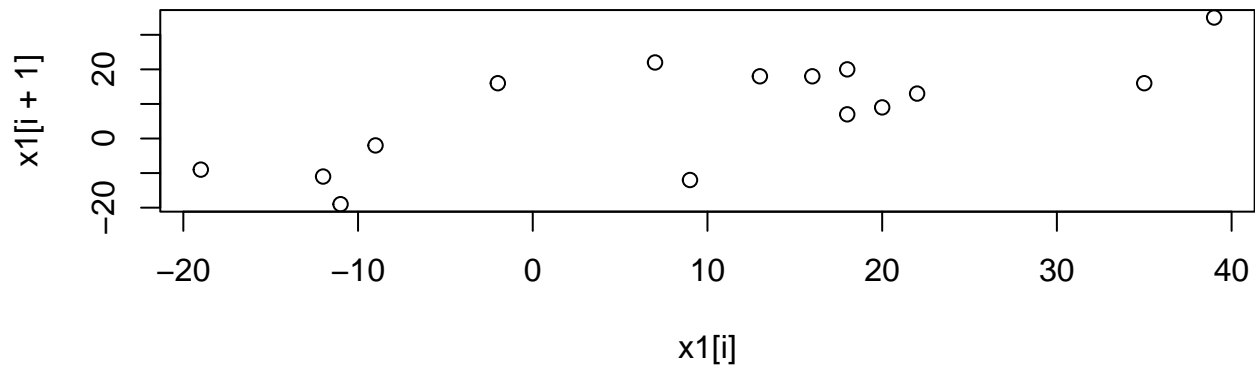
- Plot the series.

```
par(mfrow = c(2,1), mar = c(5,4,1,0))
ts.plot(x1)
ts.plot(x2)
```



- Make a scatter plot of the series and its lag 1 values.

```
i <- 1:(length(x1)-1)
par(mfrow = c(2,1), mar = c(5,4,1,0))
plot(x1[i], x1[i+1])
plot(x2[i], x2[i+1])
```



- Plot the acf and comment.

```
par(mfrow = c(2,1), mar = c(5,4,1,0))  
acf(x1)  
acf(x2)
```

