Assignment 7

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1.

```
x.1 <- matrix(c(1382.2, 1114.4,
                1114.4, 1382.2)
                ,nrow = 2, ncol = 2)

x.2 <- matrix(c(1114.4, 591.73), nrow = 2, ncol = 1)

x.1.inv <- solve(x.1)
x.1.inv%*%x.2
```

```
##             [,1]
## [1,]  1.3175495
## [2,] -0.6341682
```

```
var_w <- 1382.2-1.3175495*1114.4+0.6341682*591.73
var_w
```

```
## [1] 289.1792
```

Yule-walker estimates:

$\phi_1 = 1.3175495$

$\phi_2 = -0.6341682$

$\sigma_w^2 = 289.1792$