

```
cattle<-read.table("kenwarda.dt")
```

(a) sample variances, along the main diagonal, and intervenor-adjusted partial correlations, below the main diagonal

```
> a<-Stats.ia(cattle)
> round(a,2)
      [,1] [,2] [,3] [,4] [,5] [,6] [,7] [,8] [,9] [,10] [,11]
[1,] 105.54 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
[2,] 0.82 155.13 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
[3,] 0.07 0.91 165.22 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
[4,] -0.24 0.03 0.93 184.86 0.00 0.00 0.00 0.00 0.00 0.00 0.00
[5,] 0.03 0.02 0.07 0.94 242.97 0.00 0.00 0.00 0.00 0.00 0.00
[6,] 0.01 -0.23 -0.04 0.23 0.94 283.77 0.00 0.00 0.00 0.00 0.00
[7,] 0.16 -0.17 -0.12 -0.18 -0.04 0.93 306.55 0.00 0.00 0.00 0.00
[8,] -0.06 0.01 0.01 -0.20 0.07 0.56 0.93 340.67 0.00 0.00 0.00
[9,] 0.26 -0.01 0.09 -0.22 -0.23 -0.30 0.35 0.97 389.15 0.00 0.00
[10,] -0.22 -0.07 0.21 0.02 -0.08 -0.09 -0.24 0.15 0.96 470.06 0.00
[11,] 0.19 -0.25 0.03 0.27 0.16 -0.24 -0.18 -0.28 0.20 0.98 444.6
```

```
> flag.ia(cattle) ## conclusions for table4.1(a)
$flag.ia
      [,1] [,2] [,3] [,4] [,5] [,6] [,7] [,8] [,9] [,10] [,11]
[1,] "0" "0" "0" "0" "0" "0" "0" "0" "0" "0" "0"
[2,] "r" "0" "0" "0" "0" "0" "0" "0" "0" "0" "0"
[3,] "a" "r" "0" "0" "0" "0" "0" "0" "0" "0" "0"
[4,] "a" "a" "r" "0" "0" "0" "0" "0" "0" "0" "0"
[5,] "a" "a" "a" "r" "0" "0" "0" "0" "0" "0" "0"
[6,] "a" "a" "a" "a" "r" "0" "0" "0" "0" "0" "0"
[7,] "a" "a" "a" "a" "a" "r" "0" "0" "0" "0" "0"
[8,] "a" "a" "a" "a" "a" "r" "r" "0" "0" "0" "0"
[9,] "a" "a" "a" "a" "a" "a" "r" "0" "0" "0" "0"
[10,] "a" "a" "a" "a" "a" "a" "a" "r" "0" "0" "0"
[11,] "a" "a" "a" "a" "a" "a" "a" "a" "r" "0" "0"
```

(b) sample partial variances, along the main diagonal, and partial correlations, below the main diagonal

```
> a<- Stats.pc(cattle)
> round(a,2)
      [,1] [,2] [,3] [,4] [,5] [,6] [,7] [,8] [,9] [,10] [,11]
[1,] 26.21 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
[2,] 0.55 16.55 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
[3,] 0.22 0.39 12.73 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
[4,] -0.20 0.18 0.41 10.52 0.00 0.00 0.00 0.00 0.00 0.00 0.00
[5,] 0.00 0.13 -0.01 0.37 16.14 0.00 0.00 0.00 0.00 0.00 0.00
[6,] 0.01 -0.13 0.13 0.30 0.26 11.40 0.00 0.00 0.00 0.00 0.00
[7,] 0.03 -0.16 0.02 0.12 0.04 0.26 24.67 0.00 0.00 0.00 0.00
[8,] -0.17 0.10 -0.05 0.07 0.17 0.22 -0.05 10.75 0.00 0.00 0.00
[9,] 0.24 -0.02 -0.17 -0.15 -0.01 0.16 0.41 0.48 8.79 0.00 0.00
[10,] -0.28 0.29 0.03 -0.28 -0.06 0.28 0.01 0.16 0.02 9.08 0.00
[11,] 0.19 -0.31 0.13 0.25 0.01 -0.38 -0.11 -0.05 0.36 0.82 9.41
```

```
> flag.pc(cattle) ## conclusions for table4.1(b)
$flag.pc
      [,1] [,2] [,3] [,4] [,5] [,6] [,7] [,8] [,9] [,10] [,11]
[1,] "0" "0" "0" "0" "0" "0" "0" "0" "0" "0" "0"
[2,] "r" "0" "0" "0" "0" "0" "0" "0" "0" "0" "0"
[3,] "a" "a" "0" "0" "0" "0" "0" "0" "0" "0" "0"
[4,] "a" "a" "a" "0" "0" "0" "0" "0" "0" "0" "0"
[5,] "a" "a" "a" "a" "0" "0" "0" "0" "0" "0" "0"
[6,] "a" "a" "a" "a" "a" "0" "0" "0" "0" "0" "0"
[7,] "a" "a" "a" "a" "a" "a" "0" "0" "0" "0" "0"
[8,] "a" "a" "a" "a" "a" "a" "a" "0" "0" "0" "0"
[9,] "a" "a" "a" "a" "a" "a" "a" "r" "0" "0" "0"
[10,] "a" "a" "a" "a" "a" "a" "a" "a" "r" "0" "0"
[11,] "a" "a" "a" "a" "a" "a" "a" "a" "a" "r" "0"
```

(c) sample innovation variances, along the main diagonal, and autoregressive coefficients, below the main diagonal

```
> a<-Stats.ar(cattle, MSE=TRUE)
> round(a,2)
      [,1] [,2] [,3] [,4] [,5] [,6] [,7] [,8] [,9] [,10] [,11]
[1,] 105.54 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
[2,]  1.00 51.41 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
[3,]  0.06  0.89 31.43 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00
[4,] -0.22  0.16  0.97 27.97 0.00 0.00 0.00 0.00 0.00 0.00 0.00
[5,]  0.02  0.00  0.05  1.02 31.82 0.00 0.00 0.00 0.00 0.00 0.00
[6,]  0.01 -0.25  0.15  0.33  0.79 34.06 0.00 0.00 0.00 0.00 0.00
[7,]  0.18 -0.32 -0.04 -0.06  0.16  1.01 47.17 0.00 0.00 0.00 0.00
[8,] -0.06  0.05  0.02 -0.27  0.23  0.61  0.42 38.27 0.00 0.00 0.00
[9,]  0.20 -0.13  0.02 -0.21 -0.07  0.00  0.32  0.93 21.92 0.00 0.00
[10,] -0.22  0.07  0.36 -0.21 -0.11 -0.07 -0.15  0.32  0.99 40.08 0.00
[11,]  0.11 -0.23  0.11  0.24  0.01 -0.34 -0.07 -0.05  0.38  0.83 14.37
```