

```

Data olympic88;
* infile datalines dlm='09'x;
  input run100m longjump shotput highjump run400m hurdles100m discus polevault javelin run1500m score;
  datalines;
11.25 7.43 15.48 2.27 48.9 15.13 49.28 4.7 61.32 268.95 8488
10.87 7.45 14.97 1.97 47.71 14.46 44.36 5.1 61.76 273.02 8399
11.18 7.44 14.2 1.97 48.29 14.81 43.66 5.2 64.16 263.2 8328
10.62 7.38 15.02 2.03 49.06 14.72 44.8 4.9 64.04 285.11 8306
11.02 7.43 12.92 1.97 47.44 14.4 41.2 5.2 57.46 256.64 8286
10.83 7.72 13.58 2.12 48.34 14.18 43.06 4.9 52.18 274.07 8272
11.18 7.05 14.12 2.06 49.34 14.39 41.68 5.7 61.6 291.2 8216
11.05 6.95 15.34 2 48.21 14.36 41.32 4.8 63 265.86 8189
11.15 7.12 14.52 2.03 49.15 14.66 42.36 4.9 66.46 269.62 8180
11.23 7.28 15.25 1.97 48.6 14.76 48.02 5.2 59.48 292.24 8167
10.94 7.45 15.34 1.97 49.94 14.25 41.86 4.8 66.64 295.89 8143
11.18 7.34 14.48 1.94 49.02 15.11 42.76 4.7 65.84 256.74 8114
11.02 7.29 12.92 2.06 48.23 14.94 39.54 5 56.8 257.85 8093
10.99 7.37 13.61 1.97 47.83 14.7 43.88 4.3 66.54 268.97 8083
11.03 7.45 14.2 1.97 48.94 15.44 41.66 4.7 64 267.48 8036
11.09 7.08 14.51 2.03 49.89 14.78 43.2 4.9 57.18 268.54 8021
11.46 6.75 16.07 2 51.28 16.06 50.66 4.8 72.6 302.42 7869
11.57 7 16.6 1.94 49.84 15 46.66 4.9 60.2 286.04 7860
11.07 7.04 13.41 1.94 47.97 14.96 40.38 4.5 51.5 262.41 7859
10.89 7.07 15.84 1.79 49.68 15.38 45.32 4.9 60.48 277.84 7781
11.52 7.36 13.93 1.94 49.99 15.64 38.82 4.6 67.04 266.42 7753
11.49 7.02 13.8 2.03 50.6 15.22 39.08 4.7 60.92 262.93 7745
11.38 7.08 14.31 2 50.24 14.97 46.34 4.4 55.68 272.68 7743
11.3 6.97 13.23 2.15 49.98 15.38 38.72 4.6 54.34 277.84 7623
11 7.23 13.15 2.03 49.73 14.96 38.06 4.5 52.82 285.57 7579
11.33 6.83 11.63 2.06 48.37 15.39 37.52 4.6 55.42 270.07 7517
11.1 6.98 12.69 1.82 48.63 15.13 38.04 4.7 49.52 261.9 7505
11.51 7.01 14.17 1.94 51.16 15.18 45.84 4.6 56.28 303.17 7422
11.26 6.9 12.41 1.88 48.24 15.61 38.02 4.4 52.68 272.06 7310
11.5 7.09 12.94 1.82 49.27 15.56 42.32 4.5 53.5 293.85 7237
11.43 6.22 13.98 1.91 51.25 15.88 46.18 4.6 57.84 294.99 7231
11.47 6.43 12.33 1.94 50.3 15 38.72 4 57.26 293.72 7016
11.57 7.19 10.27 1.91 50.71 16.2 34.36 4.1 54.94 269.98 6907
;

```

```
Run;
```

```
Proc corr data=olympic88;
```

```
  title "Checking correlations among variables to be used in PCA";
```

```
Run;
```

```
Proc princomp data=olympic88;
```

```
  var run100m longjump shotput highjump run400m hurdles100m discus polevault javelin run1500m;
```

```
  title "PCA using older PROC PRINCOMP - no rotation available";
```

```
Run;
```

```
Proc factor data=olympic88
```

```
  rotate = varimax
```

```
  plots=(scree loadings);
```

```
  var run100m longjump shotput highjump run400m hurdles100m discus polevault javelin run1500m;
```

```
  title "Final PCA analysis using PROC FACTOR with VARIMAX rotation";
```

```
Run;
```