社統作業

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一、

1.
```
> prod(1:170)
[1] 7.257416e+306
```

2.
```
> a<-seq(from=2,to=1000,by=2)
> prod(a)
[1] Inf
```

3.
```
> z<-seq(from=3,to=8886,by=3)
> sum(z)
[1] 13164609
```

4.
```
> seq(from=5,to=1990,by=5)
  [1]    5   10   15   20   25   30   35   40   45   50
 [11]   55   60   65   70   75   80   85   90   95  100
 [21]  105  110  115  120  125  130  135  140  145  150
 [31]  155  160  165  170  175  180  185  190  195  200
 [41]  205  210  215  220  225  230  235  240  245  250
 [51]  255  260  265  270  275  280  285  290  295  300
 [61]  305  310  315  320  325  330  335  340  345  350
 [71]  355  360  365  370  375  380  385  390  395  400
 [81]  405  410  415  420  425  430  435  440  445  450
 [91]  455  460  465  470  475  480  485  490  495  500
[101]  505  510  515  520  525  530  535  540  545  550
[111]  555  560  565  570  575  580  585  590  595  600
[121]  605  610  615  620  625  630  635  640  645  650
[131]  655  660  665  670  675  680  685  690  695  700
[141]  705  710  715  720  725  730  735  740  745  750
[151]  755  760  765  770  775  780  785  790  795  800
[161]  805  810  815  820  825  830  835  840  845  850
[171]  855  860  865  870  875  880  885  890  895  900
[181]  905  910  915  920  925  930  935  940  945  950
[191]  955  960  965  970  975  980  985  990  995 1000
[201] 1005 1010 1015 1020 1025 1030 1035 1040 1045 1050
[211] 1055 1060 1065 1070 1075 1080 1085 1090 1095 1100
[221] 1105 1110 1115 1120 1125 1130 1135 1140 1145 1150
[231] 1155 1160 1165 1170 1175 1180 1185 1190 1195 1200
[241] 1205 1210 1215 1220 1225 1230 1235 1240 1245 1250
[251] 1255 1260 1265 1270 1275 1280 1285 1290 1295 1300
[261] 1305 1310 1315 1320 1325 1330 1335 1340 1345 1350
[271] 1355 1360 1365 1370 1375 1380 1385 1390 1395 1400
[281] 1405 1410 1415 1420 1425 1430 1435 1440 1445 1450
[291] 1455 1460 1465 1470 1475 1480 1485 1490 1495 1500
[301] 1505 1510 1515 1520 1525 1530 1535 1540 1545 1550
[311] 1555 1560 1565 1570 1575 1580 1585 1590 1595 1600
[321] 1605 1610 1615 1620 1625 1630 1635 1640 1645 1650
[331] 1655 1660 1665 1670 1675 1680 1685 1690 1695 1700
[341] 1705 1710 1715 1720 1725 1730 1735 1740 1745 1750
[351] 1755 1760 1765 1770 1775 1780 1785 1790 1795 1800
```

```
[361] 1805 1810 1815 1820 1825 1830 1835 1840 1845 1850
[371] 1855 1860 1865 1870 1875 1880 1885 1890 1895 1900
[381] 1905 1910 1915 1920 1925 1930 1935 1940 1945 1950
[391] 1955 1960 1965 1970 1975 1980 1985 1990
> y<-seq(from=5,to=1990,by=5)
> mean(y)
[1] 997.5
> sd(y)
[1] 575.1848
```

5.
```
>x<-c(27,18,36,77,102)
> mean(x)
[1] 52
```


二、課本(Ch1)：
1.4
a. nominal
b. interval-ratio
c. interval-ratio
d. nominal
e. ordinal
f. interval-ratio
g. nominal
h. ordinal
i. nominal
j. interval-ratio

1.5
a. nominal
b. ordinal
c. ordinal
d. interval-ratio
e. interval-ratio
f. interval-ratio
g. nominal
h. interval-ratio
i. ordinal
j. interval-ratio/ordinal

1.6

a	infant mortality rates	interval-ratio	independent
	quality of life	ordinal	dependent
	percentage of all adults who are permitted to vote	interval-ratio	independent
	democratization	ordinal	dependent
b	speed limit	interval-ratio	independent
	result in accidents	ordinal	dependent
	traffic volume	interval-ratio	independent
	number of accidents	interval-ratio	independent
	number of fatalities	interval-ratio	independent
c	effectiveness of the program	ordinal	dependent
	knowledge of safe sex practices before the program	nominal	independent
	knowledge of safe sex practices after the program	nominal	independent

d	the frequency of sexual harassment age major	ordinal interval-ratio nominal	dependent independent independent
e	assess two different methods of trash collection the number of complaints received from the two different areas the amount of time per day required to service each area the cost per ton of trash collected	ordinal interval-ratio interval-ratio interval-ratio	dependent independent independent independent
f	tolerance for diversity race ethnicity	ordinal nominal nominal	dependent independent independent
g	budgets for mental health care the size of the homeless population before and after the cuts	interval-ratio interval-ratio	independent dependent
h	whether he or she supports the store's closing how many times each has visited the store he or she agrees that "pornography causes sexual assaults on women" gender political philosophy major	ordinal interval-ratio ordinal nominal nominal nominal	dependent dependent dependent independent independent independent

1.9

a	racial preferences in dating among college students rank racial-ethnic categories	ordinal ordinal	dependent independent
b	the number of romantic relationships the number of times they have had sexual intercourse high school grade-point average	interval-ratio interval-ratio interval-ratio	dependent dependent independent
c	percentage of minority voters voting turnout percentage of minority elected officials	interval-ratio interval-ratio interval-ratio	independent dependent independent
d	per capita income percentage of children enrolled in school school enrollment of boys school enrollment of girls	interval-ratio interval-ratio interval-ratio interval-ratio	independent dependent dependent dependent
e	the level of support for gun control number of years of schooling gender region political party preference	ordinal interval-ratio nominal nominal nominal	dependent independent independent independent independent