

→ /* Arithmetic progression of primes of length L */

→ /* L=5 */

```
→ /* 5+(2j)l
   l=0,1,2,3,4,
   j=1,...,50 */
for j:1 thru 500 do
  (if primep(5+2·j)
   and primep(5+4·j)
   and primep(5+6·j)
   and primep(5+8·j)
   then
    print(5, 5+2·j, 5+4·j, 5+6·j, 5+8·j));
5 11 17 23 29
5 17 29 41 53
5 47 89 131 173
5 53 101 149 197
5 101 197 293 389
5 131 257 383 509
5 257 509 761 1013
5 431 857 1283 1709
5 479 953 1427 1901
5 599 1193 1787 2381
5 641 1277 1913 2549
5 809 1613 2417 3221
(%o2) done
```

```

→ /· (a+10k)+(10j)l
   l=0,1,2,3,4,
   a=1,3,7,9
   k=0,1,...,100,
   j=1,...,100 ·/
for i:1 thru 5 do
(for k:0 thru 100 do
(for j:1 thru 100 do
(if primep(2·i-1+10·k)
  and primep(2·i-1+10·k+10·j)
  and primep(2·i-1+10·k+20·j)
  and primep(2·i-1+10·k+30·j)
  and primep(2·i-1+10·k+40·j)
  then
    print(2·i-1+10·k,
          2·i-1+10·k+10·j,
          2·i-1+10·k+20·j,
          2·i-1+10·k+30·j,
          2·i-1+10·k+40·j)))));

```

```

11 41 71 101 131
11 71 131 191 251
11 461 911 1361 1811
11 491 971 1451 1931
31 601 1171 1741 2311
41 461 881 1301 1721
61 151 241 331 421
71 131 191 251 311
71 281 491 701 911
101 281 461 641 821
151 181 211 241 271
151 811 1471 2131 2791
151 991 1831 2671 3511
191 821 1451 2081 2711
191 1061 1931 2801 3671
211 751 1291 1831 2371
241 811 1381 1951 2521
251 1031 1811 2591 3371
281 401 521 641 761
281 821 1361 1901 2441
311 701 1091 1481 1871
311 911 1511 2111 2711
331 571 811 1051 1291
331 1171 2011 2851 3691

```

→ $\int \cdot L=6 \cdot \int$

```

→ /· (a+10k)+(10j)l
   l=0,1,2,3,4,5,
   a=1,3,7,9
   k=0,1,...,100,
   j=1,...,100 ·/
for i:1 thru 5 do
(for k:0 thru 100 do
(for j:1 thru 100 do
(if primep(2·i-1+10·k)
  and primep(2·i-1+10·k+10·j)
  and primep(2·i-1+10·k+20·j)
  and primep(2·i-1+10·k+30·j)
  and primep(2·i-1+10·k+40·j)
  and primep(2·i-1+10·k+50·j)
  then
    print(2·i-1+10·k,
           2·i-1+10·k+10·j,
           2·i-1+10·k+20·j,
           2·i-1+10·k+30·j,
           2·i-1+10·k+40·j,
           2·i-1+10·k+50·j)))));

11 71 131 191 251 311
11 491 971 1451 1931 2411
41 461 881 1301 1721 2141
281 401 521 641 761 881
331 571 811 1051 1291 1531
401 1061 1721 2381 3041 3701
491 821 1151 1481 1811 2141
541 571 601 631 661 691
641 701 761 821 881 941
701 821 941 1061 1181 1301
811 1321 1831 2341 2851 3361
881 1091 1301 1511 1721 1931
13 103 193 283 373 463
13 223 433 643 853 1063
43 463 883 1303 1723 2143
73 223 373 523 673 823
133 673 1213 1753 2293 2833
193 613 1033 1453 1873 2293
193 823 1453 2083 2713 3343
253 463 673 883 1093 1303
313 1153 1993 2833 3673 4513
403 1093 1783 2473 3163 3853

```

→ $\int \cdot L=7 \cdot /$

```

→  /· (a+10k)+(10j)|
    l=0,1,2,3,4,5,6
    a=1,3,7,9
    k=0,1,...,200,
    j=1,...,200 ·/
for i:1 thru 5 do
(for k:0 thru 200 do
(for j:1 thru 200 do
(if primep(2·i-1+10·k)
  and primep(2·i-1+10·k+10·j)
  and primep(2·i-1+10·k+20·j)
  and primep(2·i-1+10·k+30·j)
  and primep(2·i-1+10·k+40·j)
  and primep(2·i-1+10·k+50·j)
  and primep(2·i-1+10·k+60·j)
  then
    print(2·i-1+10·k,
      2·i-1+10·k+10·j,
      2·i-1+10·k+20·j,
      2·i-1+10·k+30·j,
      2·i-1+10·k+40·j,
      2·i-1+10·k+50·j,
      2·i-1+10·k+60·j)))));

881 1091 1301 1511 1721 1931 2141
1061 1901 2741 3581 4421 5261 6101
1091 1301 1511 1721 1931 2141 2351
1811 3701 5591 7481 9371 11261 13151
1931 3191 4451 5711 6971 8231 9491
53 1103 2153 3203 4253 5303 6353
193 613 1033 1453 1873 2293 2713
1453 1663 1873 2083 2293 2503 2713
1723 3613 5503 7393 9283 11173 13063
1753 2593 3433 4273 5113 5953 6793
7 157 307 457 607 757 907
47 257 467 677 887 1097 1307
1637 2267 2897 3527 4157 4787 5417
179 389 599 809 1019 1229 1439
199 409 619 829 1039 1249 1459
359 1619 2879 4139 5399 6659 7919
409 619 829 1039 1249 1459 1669
619 829 1039 1249 1459 1669 1879
829 1039 1249 1459 1669 1879 2089
1279 2749 4219 5689 7159 8629 10099

```

→ $\int_{\cdot} L=8 \cdot \int$

```

→ /· (a+10k)+(10j)|
   l=0,1,2,3,4,5,6,7
   a=1,3,7,9
   k=0,1,...,500,
   j=1,...,500 ·/
for i:1 thru 5 do
(for k:0 thru 500 do
(for j:1 thru 500 do
(if primep(2·i-1+10·k)
  and primep(2·i-1+10·k+10·j)
  and primep(2·i-1+10·k+20·j)
  and primep(2·i-1+10·k+30·j)
  and primep(2·i-1+10·k+40·j)
  and primep(2·i-1+10·k+50·j)
  and primep(2·i-1+10·k+60·j)
  and primep(2·i-1+10·k+70·j)
then
  print(2·i-1+10·k,
    2·i-1+10·k+10·j,
    2·i-1+10·k+20·j,
    2·i-1+10·k+30·j,
    2·i-1+10·k+40·j,
    2·i-1+10·k+50·j,
    2·i-1+10·k+60·j,
    2·i-1+10·k+70·j)))));

```

```

881 1091 1301 1511 1721 1931 2141 2351
1091 3821 6551 9281 12011 14741 17471 20201
1531 6151 10771 15391 20011 24631 29251 33871
4721 7451 10181 12911 15641 18371 21101 23831
103 4723 9343 13963 18583 23203 27823 32443
433 3583 6733 9883 13033 16183 19333 22483
2063 3323 4583 5843 7103 8363 9623 10883
2693 4583 6473 8363 10253 12143 14033 15923
3083 7703 12323 16943 21563 26183 30803 35423
3323 4583 5843 7103 8363 9623 10883 12143
3583 6733 9883 13033 16183 19333 22483 25633
3823 6133 8443 10753 13063 15373 17683 19993
1637 2267 2897 3527 4157 4787 5417 6047
1847 3947 6047 8147 10247 12347 14447 16547
3257 7877 12497 17117 21737 26357 30977 35597
3907 8737 13567 18397 23227 28057 32887 37717
199 409 619 829 1039 1249 1459 1669
409 619 829 1039 1249 1459 1669 1879

```


→ $\int_{\cdot} L=9 \cdot \int$

```

→  /· (a+10k)+(10j)|
    l=0,1,2,3,4,5,6,7,8
    a=1,3,7,9
    k=0,1,...,1000,
    j=1,...,1000 ·/
for i:1 thru 5 do
(for k:0 thru 1000 do
(for j:1 thru 1000 do
(if primep(2·i-1+10·k)
  and primep(2·i-1+10·k+10·j)
  and primep(2·i-1+10·k+20·j)
  and primep(2·i-1+10·k+30·j)
  and primep(2·i-1+10·k+40·j)
  and primep(2·i-1+10·k+50·j)
  and primep(2·i-1+10·k+60·j)
  and primep(2·i-1+10·k+70·j)
  and primep(2·i-1+10·k+80·j)
  then
    print(2·i-1+10·k,
      2·i-1+10·k+10·j,
      2·i-1+10·k+20·j,
      2·i-1+10·k+30·j,
      2·i-1+10·k+40·j,
      2·i-1+10·k+50·j,
      2·i-1+10·k+60·j,
      2·i-1+10·k+70·j,
      2·i-1+10·k+80·j)))));

```

```

521 10181 19841 29501 39161 48821 58481 68141 77801
4091 12071 20051 28031 36011 43991 51971 59951 67931
4721 7451 10181 12911 15641 18371 21101 23831 26561
7151 14081 21011 27941 34871 41801 48731 55661 62591
433 3583 6733 9883 13033 16183 19333 22483 25633
2063 3323 4583 5843 7103 8363 9623 10883 12143
3413 8663 13913 19163 24413 29663 34913 40163 45413
3823 6133 8443 10753 13063 15373 17683 19993 22303
6043 6883 7723 8563 9403 10243 11083 11923 12763
6553 14323 22093 29863 37633 45403 53173 60943 68713
17 6947 13877 20807 27737 34667 41597 48527 55457
137 8117 16097 24077 32057 40037 48017 55997 63977
937 10177 19417 28657 37897 47137 56377 65617 74857
199 409 619 829 1039 1249 1459 1669 1879
409 619 829 1039 1249 1459 1669 1879 2089
1609 5689 8679 13669 17659 21649 25639 29629 33619

```

→ $\cdot L=10 \cdot$

```

→ /· (a+10k)+(10j)|
   l=0,1,2,3,4,5,6,7,8,9
   a=1,3,7,9
   k=0,1,...,5000,
   j=1,...,5000 ·/
for i:1 thru 5 do
(for k:0 thru 5000 do
(for j:1 thru 5000 do
(if primep(2·i-1+10·k)
  and primep(2·i-1+10·k+10·j)
  and primep(2·i-1+10·k+20·j)
  and primep(2·i-1+10·k+30·j)
  and primep(2·i-1+10·k+40·j)
  and primep(2·i-1+10·k+50·j)
  and primep(2·i-1+10·k+60·j)
  and primep(2·i-1+10·k+70·j)
  and primep(2·i-1+10·k+80·j)
  and primep(2·i-1+10·k+90·j)
then
  print(2·i-1+10·k,
    2·i-1+10·k+10·j,
    2·i-1+10·k+20·j,
    2·i-1+10·k+30·j,
    2·i-1+10·k+40·j,
    2·i-1+10·k+50·j,
    2·i-1+10·k+60·j,
    2·i-1+10·k+70·j,
    2·i-1+10·k+80·j,
    2·i-1+10·k+90·j)))));
4831 35281 65731 96181 126631 157081 187531 217981
248431 278881
25471 42901 60331 77761 95191 112621 130051 147481
164911 182341
443 32783 65123 97463 129803 162143 194483 226823
259163 291503
23143 53173 83203 113233 143263 173293 203323 233353
263383 293413
34913 37013 39113 41213 43313 45413 47513 49613 51713
53813
1847 17807 33767 49727 65687 81647 97607 113567 129527
145487
5827 37537 69247 100957 132667 164377 196087 227797
259507 291217

```

→ `/· L=11 ·/`

→ `/· (a+10k)+(10j)|
 l=0,1,2,3,4,5,6,7,8,9,10
 a=1,3,7,9
 k=0,1,...,20000,
 j=1,...,50000 ·/
 for i:1 thru 5 do
 (for k:0 thru 20000 do
 (for j:1 thru 50000 do
 (if primep(2·i-1+10·k)
 and primep(2·i-1+10·k+10·j)
 and primep(2·i-1+10·k+20·j)
 and primep(2·i-1+10·k+30·j)
 and primep(2·i-1+10·k+40·j)
 and primep(2·i-1+10·k+50·j)
 and primep(2·i-1+10·k+60·j)
 and primep(2·i-1+10·k+70·j)
 and primep(2·i-1+10·k+80·j)
 and primep(2·i-1+10·k+90·j)
 and primep(2·i-1+10·k+100·j)
 then
 print(2·i-1+10·k,
 2·i-1+10·k+10·j,
 2·i-1+10·k+20·j,
 2·i-1+10·k+30·j,
 2·i-1+10·k+40·j,
 2·i-1+10·k+50·j,
 2·i-1+10·k+60·j,
 2·i-1+10·k+70·j,
 2·i-1+10·k+80·j,
 2·i-1+10·k+90·j,
 2·i-1+10·k+100·j)))));`

→ `/· L=12 ·/`

```

→  /\ (a+10k)+(10j)|
    l=0,1,2,3,4,5,6,7,8,9,10,11
    a=1,3,7,9
    k=0,1,...,20000,
    j=1,...,50000 /\
for i:1 thru 5 do
(for k:0 thru 20000 do
(for j:1 thru 50000 do
(if primep(2·i-1+10·k)
  and primep(2·i-1+10·k+10·j)
  and primep(2·i-1+10·k+20·j)
  and primep(2·i-1+10·k+30·j)
  and primep(2·i-1+10·k+40·j)
  and primep(2·i-1+10·k+50·j)
  and primep(2·i-1+10·k+60·j)
  and primep(2·i-1+10·k+70·j)
  and primep(2·i-1+10·k+80·j)
  and primep(2·i-1+10·k+90·j)
  and primep(2·i-1+10·k+100·j)
  and primep(2·i-1+10·k+110·j)
then
print(2·i-1+10·k,
      2·i-1+10·k+10·j,
      2·i-1+10·k+20·j,
      2·i-1+10·k+30·j,
      2·i-1+10·k+40·j,
      2·i-1+10·k+50·j,
      2·i-1+10·k+60·j,
      2·i-1+10·k+70·j,
      2·i-1+10·k+80·j,
      2·i-1+10·k+90·j,
      2·i-1+10·k+100·j,
      2·i-1+10·k+110·j)))));

```