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[> #This is Maple code
[> # by Matt Anderson
[> # want procedure for pairs of prime numbers
[> mtx1 := Matrix(3, 100) :
[>
[> #input difference between the two prime numbers
[>
[> # note the two prime numbers are not necessarily consecutive primes.
[> # could use ithprime() to optimise
[>
[>
[>
[> # I don't know how to fix this.
[> mattsPrimePairsProc := proc(diff1);
[> counter := 1 :
[> searchstop := 1000; # local parameter
[> for a from 3 to searchstop by 2 do
[> if isprime(a) and isprime(a + diff1) then print(counter, "hourah!! we found a pair", a, " ", a
[> + diff1);
[> counter := counter + 1;
[> end if;
[> end do;
[> end proc;
Warning, `counter` is implicitly declared local to procedure
`mattsPrimePairsProc`
Warning, `searchstop` is implicitly declared local to procedure
`mattsPrimePairsProc`
Warning, `a` is implicitly declared local to procedure
`mattsPrimePairsProc`
mattsPrimePairsProc := proc(diff1)
    local counter, searchstop, a;
    counter := 1;
    searchstop := 1000;
    for a from 3 by 2 to searchstop do
        if isprime(a) and isprime(a + diff1) then
            print(counter, "hourah!! we found a pair", a, " ", a + diff1); counter := counter + 1
        end if
    end do
end proc
[>
[>
[> diff1 := 48;
[>
[> counter := 1 :
diff1 := 48

```

(1)

(2)

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> for a from 3 to 1000 by 2 do
  if isprime(a) and isprime(a + diff1) then print(counter, "yay! found a pair", a, " ", a
    + diff1); counter := counter + 1; end if;
end do;
```

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1, "yay! found a pair", 5, " ", 53
2, "yay! found a pair", 11, " ", 59
3, "yay! found a pair", 13, " ", 61
4, "yay! found a pair", 19, " ", 67
5, "yay! found a pair", 23, " ", 71
6, "yay! found a pair", 31, " ", 79
7, "yay! found a pair", 41, " ", 89
8, "yay! found a pair", 53, " ", 101
9, "yay! found a pair", 59, " ", 107
10, "yay! found a pair", 61, " ", 109
11, "yay! found a pair", 79, " ", 127
12, "yay! found a pair", 83, " ", 131
13, "yay! found a pair", 89, " ", 137
14, "yay! found a pair", 101, " ", 149
15, "yay! found a pair", 103, " ", 151
16, "yay! found a pair", 109, " ", 157
17, "yay! found a pair", 131, " ", 179
18, "yay! found a pair", 149, " ", 197
19, "yay! found a pair", 151, " ", 199
20, "yay! found a pair", 163, " ", 211
21, "yay! found a pair", 179, " ", 227
22, "yay! found a pair", 181, " ", 229
23, "yay! found a pair", 191, " ", 239
24, "yay! found a pair", 193, " ", 241
25, "yay! found a pair", 223, " ", 271
26, "yay! found a pair", 229, " ", 277
27, "yay! found a pair", 233, " ", 281
28, "yay! found a pair", 263, " ", 311
29, "yay! found a pair", 269, " ", 317
30, "yay! found a pair", 283, " ", 331
31, "yay! found a pair", 311, " ", 359
32, "yay! found a pair", 331, " ", 379
33, "yay! found a pair", 349, " ", 397
34, "yay! found a pair", 353, " ", 401
35, "yay! found a pair", 373, " ", 421
36, "yay! found a pair", 383, " ", 431
37, "yay! found a pair", 401, " ", 449
38, "yay! found a pair", 409, " ", 457
39, "yay! found a pair", 419, " ", 467
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40, "yay! found a pair", 431, " ", 479  
41, "yay! found a pair", 439, " ", 487  
42, "yay! found a pair", 443, " ", 491  
43, "yay! found a pair", 461, " ", 509  
44, "yay! found a pair", 499, " ", 547  
45, "yay! found a pair", 509, " ", 557  
46, "yay! found a pair", 521, " ", 569  
47, "yay! found a pair", 523, " ", 571  
48, "yay! found a pair", 569, " ", 617  
49, "yay! found a pair", 571, " ", 619  
50, "yay! found a pair", 593, " ", 641  
51, "yay! found a pair", 599, " ", 647  
52, "yay! found a pair", 613, " ", 661  
53, "yay! found a pair", 643, " ", 691  
54, "yay! found a pair", 653, " ", 701  
55, "yay! found a pair", 661, " ", 709  
56, "yay! found a pair", 691, " ", 739  
57, "yay! found a pair", 709, " ", 757  
58, "yay! found a pair", 739, " ", 787  
59, "yay! found a pair", 761, " ", 809  
60, "yay! found a pair", 773, " ", 821  
61, "yay! found a pair", 809, " ", 857  
62, "yay! found a pair", 811, " ", 859  
63, "yay! found a pair", 829, " ", 877  
64, "yay! found a pair", 839, " ", 887  
65, "yay! found a pair", 859, " ", 907  
66, "yay! found a pair", 863, " ", 911  
67, "yay! found a pair", 881, " ", 929  
68, "yay! found a pair", 919, " ", 967  
69, "yay! found a pair", 929, " ", 977  
70, "yay! found a pair", 971, " ", 1019  
71, "yay! found a pair", 983, " ", 1031  
72, "yay! found a pair", 991, " ", 1039

(3)

- > # *and that, gentlemen, is how you do that*
- > # *quote from movie Apollo 13*
- > # *Matt*
- > #*share*
- >