```
> #This is Maple code
> # by Matt Anderson
> # have procecure to search for and find sets of prime numbers
>
> #input difference between the two prime numbers in variable diff1 (meaning difference 1)
>
> # note the set of prime numbers are not neccessarily consecutive primes.
>
> # you could use ithprime() to optimise this code, and make the calculations sub microsecond.
> # but it is pretty fast already.  It is nice clean simple code.
>
> # input 0 for less than a 10 tuple.  Just give pattern.
>
> tuple10 := proc(searchstop, diff1, diff2, diff3, diff4, diff5, diff6, diff7, diff8, diff9, diff10);
    local a, counter;
    counter := 1;
                          # A passed parameter for list lengths is called searchstop.
    for a from 3 to searchstop by 2 do
    if isprime(a) and isprime(a+diff1) and isprime(a+diff2) and isprime(a+diff3)
        and isprime(a+diff4) and isprime(a+diff5) and isprime(a+diff6) and isprime(a
        +diff7) and isprime(a+diff8) and isprime(a+diff9) and isprime(a+diff10) then
    print(counter, "hourah!! we found a set", a, " ", a+diff1, " ", a+diff2, a+diff3, a+diff4, a
        +diff5, a+diff6, a+diff7, a+diff8, a+diff9, a+diff10);
    counter := counter+1;
    end if;
    end do;
    end proc;
```

$tuple10 :=$ **proc**$(searchstop, diff1, diff2, diff3, diff4, diff5, diff6, diff7, diff8, diff9, diff10)$　　　　**(1)**
    local $a, counter;$
    $counter := 1;$
    for a **from** 3 **by** 2 **to** $searchstop$ **do**
        if $isprime(a)$ **and** $isprime(a+diff1)$ **and** $isprime(a+diff2)$ **and** $isprime(a+diff3)$
        and $isprime(a+diff4)$ **and** $isprime(a+diff5)$ **and** $isprime(a+diff6)$ **and** $isprime(a$
        $+diff7)$ **and** $isprime(a+diff8)$ **and** $isprime(a+diff9)$ **and** $isprime(a+diff10)$ **then**
            $print(counter,$ "hourah!! we found a set"$, a, " ", a+diff1, " ", a+diff2, a+diff3, a$
            $+diff4, a+diff5, a+diff6, a+diff7, a+diff8, a+diff9, a+diff10);$
            $counter := counter+1$
        end if
    end do
end proc

```
> # now try the procedure - like a test drive for computer code.  Let's see if it works.
>
> # these have set repitition.  Pretty cool.  Good fun.
>
> tuple10(1000, 82, 0, 0, 0, 0, 0, 0, 0, 0, 0);
```
   1, "hourah!! we found a set", 7, " ", 89, " ", 7, 7, 7, 7, 7, 7, 7, 7, 7

2, "hourah!! we found a set", 19, " ", 101, " ", 19, 19, 19, 19, 19, 19, 19, 19, 19

3, "hourah!! we found a set", 31, " ", 113, " ", 31, 31, 31, 31, 31, 31, 31, 31, 31

4, "hourah!! we found a set", 67, " ", 149, " ", 67, 67, 67, 67, 67, 67, 67, 67, 67

5, "hourah!! we found a set", 97, " ", 179, " ", 97, 97, 97, 97, 97, 97, 97, 97, 97

6, "hourah!! we found a set", 109, " ", 191, " ", 109, 109, 109, 109, 109, 109, 109, 109, 109

7, "hourah!! we found a set", 151, " ", 233, " ", 151, 151, 151, 151, 151, 151, 151, 151, 151

8, "hourah!! we found a set", 157, " ", 239, " ", 157, 157, 157, 157, 157, 157, 157, 157, 157

9, "hourah!! we found a set", 181, " ", 263, " ", 181, 181, 181, 181, 181, 181, 181, 181, 181

10, "hourah!! we found a set", 199, " ", 281, " ", 199, 199, 199, 199, 199, 199, 199, 199, 199

11, "hourah!! we found a set", 211, " ", 293, " ", 211, 211, 211, 211, 211, 211, 211, 211, 211

12, "hourah!! we found a set", 229, " ", 311, " ", 229, 229, 229, 229, 229, 229, 229, 229, 229

13, "hourah!! we found a set", 271, " ", 353, " ", 271, 271, 271, 271, 271, 271, 271, 271, 271

14, "hourah!! we found a set", 277, " ", 359, " ", 277, 277, 277, 277, 277, 277, 277, 277, 277

15, "hourah!! we found a set", 307, " ", 389, " ", 307, 307, 307, 307, 307, 307, 307, 307, 307

16, "hourah!! we found a set", 337, " ", 419, " ", 337, 337, 337, 337, 337, 337, 337, 337, 337

17, "hourah!! we found a set", 349, " ", 431, " ", 349, 349, 349, 349, 349, 349, 349, 349, 349

18, "hourah!! we found a set", 367, " ", 449, " ", 367, 367, 367, 367, 367, 367, 367, 367, 367

19, "hourah!! we found a set", 379, " ", 461, " ", 379, 379, 379, 379, 379, 379, 379, 379, 379

20, "hourah!! we found a set", 397, " ", 479, " ", 397, 397, 397, 397, 397, 397, 397, 397, 397

21, "hourah!! we found a set", 409, " ", 491, " ", 409, 409, 409, 409, 409, 409, 409, 409, 409

22, "hourah!! we found a set", 421, " ", 503, " ", 421, 421, 421, 421, 421, 421, 421, 421, 421

23, "hourah!! we found a set", 439, " ", 521, " ", 439, 439, 439, 439, 439, 439, 439, 439, 439

24, "hourah!! we found a set", 487, " ", 569, " ", 487, 487, 487, 487, 487, 487, 487, 487, 487

25, "hourah!! we found a set", 571, " ", 653, " ", 571, 571, 571, 571, 571, 571, 571, 571, 571

26, "hourah!! we found a set", 577, " ", 659, " ", 577, 577, 577, 577, 577, 577, 577, 577, 577

27, "hourah!! we found a set", 601, " ", 683, " ", 601, 601, 601, 601, 601, 601, 601, 601, 601

28, "hourah!! we found a set", 619, " ", 701, " ", 619, 619, 619, 619, 619, 619, 619, 619, 619

29, "hourah!! we found a set", 661, " ", 743, " ", 661, 661, 661, 661, 661, 661, 661, 661, 661

30, "hourah!! we found a set", 691, " ", 773, " ", 691, 691, 691, 691, 691, 691, 691, 691, 691

31, "hourah!! we found a set", 727, " ", 809, " ", 727, 727, 727, 727, 727, 727, 727, 727, 727

32, "hourah!! we found a set", 739, " ", 821, " ", 739, 739, 739, 739, 739, 739, 739, 739, 739

33, "hourah!! we found a set", 757, " ", 839, " ", 757, 757, 757, 757, 757, 757, 757, 757, 757

34, "hourah!! we found a set", 829, " ", 911, " ", 829, 829, 829, 829, 829, 829, 829, 829, 829

35, "hourah!! we found a set", 859, " ", 941, " ", 859, 859, 859, 859, 859, 859, 859, 859, 859

36, "hourah!! we found a set", 937, " ", 1019, " ", 937, 937, 937, 937, 937, 937, 937, 937, 937

37, "hourah!! we found a set", 967, " ", 1049, " ", 967, 967, 967, 967, 967, 967, 967, 967, 967   **(2)**

> # we have 37 sets of primes, and they are 82 apart. That is the difference between primes in a pair is 82.

> # note OEIS.org only records prime pairs for even numbers 2 through 44.

> # Also, OEIS has limited 3-tuples in the database. They are deemed 'not of general intrest'.

>

> # all prime numbers

> # We want original calculations, that are not already in a public database.
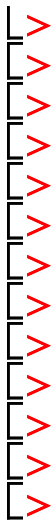
```
>
> # now share on web.  (wheather it wants it or not :-)
> # have a nice day
> # Matthew
>
> #Please spread this or similar code around.   Let me know, if you do.
> #email matthewcharlesanderson2@gmail.com
>
>
> # To quote the mathematician Michael Penn (From YouTube)
> # That is a good place to stop.
>
>
```