

```
[> # "  
[> # Goldbach's Weak Conjecture is equivalent to all odd numbers greater than 9 are the sum of 3  
[> odd prime numbers.  
[> # Conjecture means 'probably true' but unproven.  
[> pp := Vector[row](20) :  
[> with(numtheory) :  
[> for a from 2 to 20 do  
[> pp[a] := ithprime(a) :  
[> end do:  
[> pp[1..9]  
[> [ 0 3 5 7 11 13 17 19 23 ] (1)  
[> # the story so far - we have a vector with 20 elements. These elements are prime numbers.  
[> pp[20]  
[> 71 (2)  
[> # The 20th prime number is 71.  
[>  
[>  
[>  
[>  
[> ithprime(20)
```

```

> # We have chosen to consider only the odd prime numbers here, hence the 0 in pp[0].
> for a from 2 to 5 do
  for b from 2 to 4 do
    for c from 2 to 3 do
      ta := pp[a];
      tb := pp[b];
      tc := pp[c];
      temp := ta+tb+tc :
      print('the counts are', a, b, c,'nexts of prim numbers are', ta, tb, tc,'withsum', temp) ;
    # print(temp);
  end do;
end do;
end do;

```

*the counts are, 2, 2, 2, nexts of prim numbers are, 3, 3, 3, withsum, 9*  
*the counts are, 2, 2, 3, nexts of prim numbers are, 3, 3, 5, withsum, 11*  
*the counts are, 2, 3, 2, nexts of prim numbers are, 3, 5, 3, withsum, 11*  
*the counts are, 2, 3, 3, nexts of prim numbers are, 3, 5, 5, withsum, 13*  
*the counts are, 2, 4, 2, nexts of prim numbers are, 3, 7, 3, withsum, 13*  
*the counts are, 2, 4, 3, nexts of prim numbers are, 3, 7, 5, withsum, 15*  
*the counts are, 3, 2, 2, nexts of prim numbers are, 5, 3, 3, withsum, 11*  
*the counts are, 3, 2, 3, nexts of prim numbers are, 5, 3, 5, withsum, 13*  
*the counts are, 3, 3, 2, nexts of prim numbers are, 5, 5, 3, withsum, 13*  
*the counts are, 3, 3, 3, nexts of prim numbers are, 5, 5, 5, withsum, 15*  
*the counts are, 3, 4, 2, nexts of prim numbers are, 5, 7, 3, withsum, 15*  
*the counts are, 3, 4, 3, nexts of prim numbers are, 5, 7, 5, withsum, 17*  
*the counts are, 4, 2, 2, nexts of prim numbers are, 7, 3, 3, withsum, 13*  
*the counts are, 4, 2, 3, nexts of prim numbers are, 7, 3, 5, withsum, 15*  
*the counts are, 4, 3, 2, nexts of prim numbers are, 7, 5, 3, withsum, 15*  
*the counts are, 4, 3, 3, nexts of prim numbers are, 7, 5, 5, withsum, 17*  
*the counts are, 4, 4, 2, nexts of prim numbers are, 7, 7, 3, withsum, 17*  
*the counts are, 4, 4, 3, nexts of prim numbers are, 7, 7, 5, withsum, 19*  
*the counts are, 5, 2, 2, nexts of prim numbers are, 11, 3, 3, withsum, 17*  
*the counts are, 5, 2, 3, nexts of prim numbers are, 11, 3, 5, withsum, 19*  
*the counts are, 5, 3, 2, nexts of prim numbers are, 11, 5, 3, withsum, 19*  
*the counts are, 5, 3, 3, nexts of prim numbers are, 11, 5, 5, withsum, 21*  
*the counts are, 5, 4, 2, nexts of prim numbers are, 11, 7, 3, withsum, 21*  
*the counts are, 5, 4, 3, nexts of prim numbers are, 11, 7, 5, withsum, 23*

```

> # Matt
> # 3 and 3 and 3 is nine while 3 and 3 and 5 is eleven
> #3-9-2017
>

```