If the numbers 1 to 5 are written out in words: one, two, three, four, five, then there are 3 + 3 + 5 + 4 + 4 = 19 letters used in total. If all the numbers from 1 to 1000 (one thousand) inclusive were written out in words, how many letters would be used?

**NOTE:** Do not count spaces or hyphens. For example, 342 (three hundred and forty-two) contains 23 letters and 115 (one hundred and fifteen) contains 20 letters.

1-99

One through Nine : occur nine times = (3 + 3 + 5 + 4 + 4 + 3 + 5 + 5 + 4) \* 9 = 324

Teens = (3 + 6 + 6 + 8 + 8 + 7 + 7 + 9 + 8 + 8) = 70

Twenty = 10 \* 6 = 60

Thirty = 10 \* 6 = 60

Forty = 10 \* 5 = 50

Fifty = 10 \* 5 = 50

Sixty = 10 \* 5 = 50

Seventy = 10 \* 7 = 70

Eighty = 10 \* 6 = 60

Ninety = 10 \* 6 = 60

Total: 854

100-999:

Every set of 100 has 854 as above + hundreds + ands = 854 \* 9 = 7686

Every hundred prepended = 900 \* 7 = 6300

Every value except the even hundreds has and prepended = 99 \* 3 \* 9 = 2673

Each value 1-9 is prepended 100 times = (3 + 3 + 5 + 4 + 4 + 3 + 5 + 5 + 4) \* 100 = 3600

Total:

854 \* 10 + 6300 + 2673 + 3600 = 21113

One thousand = 11

Total: 21124



