Problem of the Week

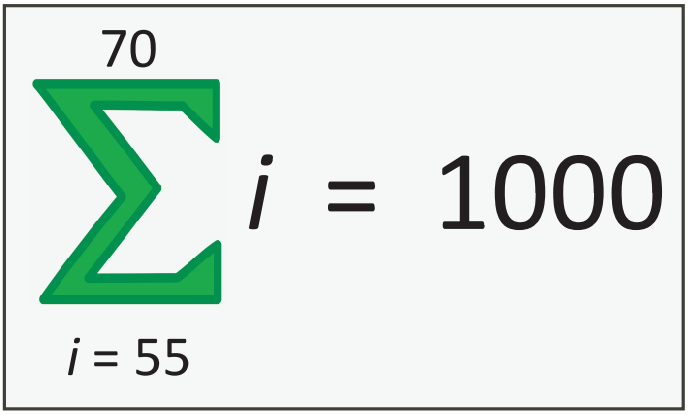
Problem D

Another way to Add 'em Up

Did you know that 1000 can be written as the sum of 16 consecutive positive integers? That is,

$$1000 = 55+56+57+58+59+60+61+62+63+64+65+66+67+68+69+70.$$

The diagram below illustrates a mathematical short form for writing the above sum. The notation is called *Sigma Notation*.



This week's Problem C asked for the minimum number of consecutive positive integers that could be used to sum to 1000.

It is also possible to write 1000 as a sum of 25 consecutive whole numbers. This is the maximum number of consecutive positive integers that could be used to create the sum.

Determine the smallest of the positive integers in this sum.