



## Problem of the Week

### Problem C

### Add 'em Up

Did you know that 1000 can be written as the sum of 16 consecutive 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 used for writing the above sum. The notation is called *Sigma Notation*.

A diagram illustrating the sum of integers from 55 to 70. It features a large green sigma symbol ( $\Sigma$ ) with the number 70 above it and  $i = 55$  below it. To the right of the sigma symbol is the variable  $i$ , followed by an equals sign and the number 1000. The entire diagram is enclosed in a black rectangular border.

$$\sum_{i=55}^{70} i = 1000$$

Using at least two numbers, what is the minimum number of consecutive integers needed to sum to exactly 1000?

