

Challenge 9: Consecutive Sums

It is possible to write 25 as the sum of consecutive integers in two different ways: $25 = 12 + 13$ $25 = 3 + 4 + 5 + 6 + 7$ a) How many ways is it possible to write 100 as the sum of consecutive integers? b) How many ways is it possible to write 126 as the sum of consecutive integers? If you have solved this problem, you might like to explore other cases. Are there any conjectures you can make about how many ways are possible in general?