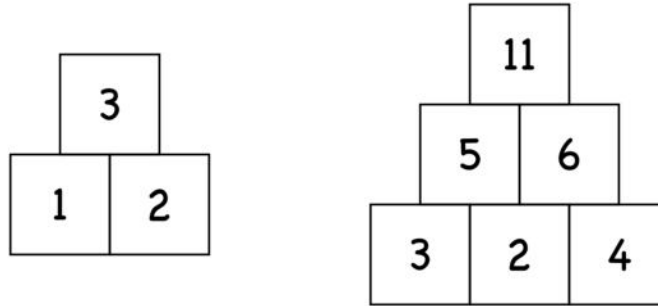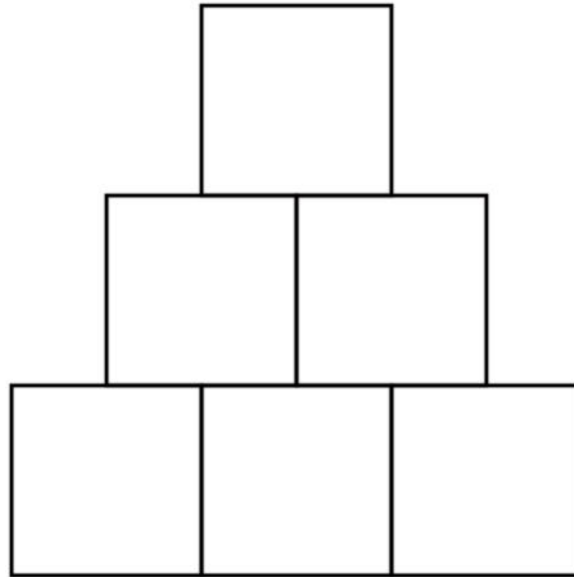# Puzzle of the Week
Sum Pyramids – 1

These pyramids are called *Sum Pyramids*. The number above each pair of connected numbers is their sum.

THE CHALLENGE: Place some of the numbers from 1 to 10, not repeating any number, to make a Sum Pyramid with the smallest possible number on top. Can you do better than 11?

1 2 3 4 5 6 7 8 9 10

Puzzle of the Week
Sum Pyramids – 1 – Notes

THE CHALLENGE: The center square in the bottom right will contribute to both squares in the middle row, and so its value will show up twice in the top number. To keep the top number as small as possible, we should put a 1 in the middle of the bottom row. We would like to put 2 and 3 in the two remaining squares in the bottom row, but that is not possible because 1 + 2 = 3 would cause 3 to be used twice.

To make the sum as small as possible, we will use (2 1 4) in the bottom row. This produces the pyramid:

(8)

(3 5)

(2 1 4)

This is a considerable improvement over having 11 on top!