***Triangle Dot Problem***

 ***![C:\Users\Julia\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\QPXY34HQ\MC900027202[1].wmf]()![C:\Users\Julia\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\QPXY34HQ\MC900027202[1].wmf]()***

The figure below is a drawing of a 5 dot triangle, made by using 5 dots on each side. The 5 dot triangle requires a total of 12 dots to construct. How many dots will be used to make a 13 dot triangle? (Hint: It might be helpful to look at 1, 2, 3, and 4 dot triangles first).

If $n$ represents the number of dots on each side of an $n$-dot triangle write an expression to represent the total number of dots in the triangle.