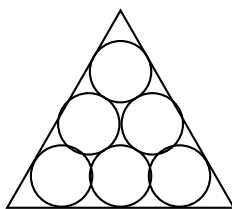


# Cal Poly Department of Mathematics

## Puzzle of the Week

April 30-May 6, 2010

Circles of equal radii are packed into an equilateral triangle with unit area in such a way that  $n$  circles are adjacent along the bottom edge,  $n - 1$  directly above them,  $n - 2$  above those, etc. (see picture, with  $n = 3$ ). If  $A_n$  is the sum of the areas of the circles find  $\lim_{n \rightarrow \infty} A_n$ .



*Solutions should be submitted to Morgan Sherman:*

*Dept. of Mathematics, Cal Poly  
Email: sherman1 -AT- calpoly.edu  
Office: bldg 25 room 310*

*before next Friday. Those with correct and complete solutions will have their names listed in next week's email announcement. Anybody is welcome to make a submission.*