Problem of the Week
Problem C
Shape On

A necklace is to be created that contains only square shapes, circular shapes, and triangular shapes. A total of 180 of these shapes will be strung on the necklace in the following sequence: 1 square, 1 circle, 1 triangle, 2 squares, 2 circles, 2 triangles, 3 squares, 3 circles, 3 triangles, with the number of each shape type increasing by one every time a new group of shapes is placed. The diagram illustrates how the first 18 shapes would be strung.

Once the necklace is completed, how many of each shape would the necklace contain?