

Each of the following arclets is made from arcs of a circle of radius  $r$ .



**3-node arclet**



**4-node arclet**

**What is the perimeter of an arclet with 3, 4, 5, and  $n$  "nodes"?**

What happens when  $n$  is very large?

Explain the relationship between your answers and the perimeter of the original circle.