

## Understanding the Vertex Jump Pattern for Centered-Point Flowers

Unlike other files in **Part III**, each jump from vertex to vertex is immediately followed by a jump to the center and a jump back out to the newly acquired vertex.

To be explicit, consider  $n = 3$  and the vertices are labelled as usual, clockwise around the circle starting at 0 (& 3) at the top. Call the center **C**. The order of vertices required to complete a circuit is thus:

**0 to 1 to C to 1 to 2 to C to 2 to 3 to C to 3**

There are three things to note about this situation:

- 1) The circuit is completed after  $3n$  jumps rather than  $n$  jumps. There are  $n$  jumps to go around the circle,  $n$  jumps to the center, and  $n$  jumps from the center back to the vertex on the circle.
- 2) The circuit is **NOT** complete as soon as  $n \& 0$  is attained (the first 3 in the sequence above). The circuit is complete once we jump to the center and back to  $n \& 0$ .
- 3) Jumps between polygonal vertices is fixed at  $J = 1$  in this file.

