Archimede’s Salinon Notes

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Archimedes considered the shape outlined in blue, called a salinon because it is similar to the shape of a vessel for holding salt (a salinon).

What is the relation between the blue region and the green circle? What can be said by then using the carpet theorem?

The first applet permits only scaling at first; the ‘mover’ button permits varying the relative sizes of the smaller semi-circles. It may be helpful at some point to use the ‘construction’ button to reveal what is kept invariant and what is permitted to change!

The second applet extends to arcs of circles not necessarily semi circles, but always subtending the same angle at the centre of the corresponding circle from which the arc is constructed. The construction invariances are show automatically.