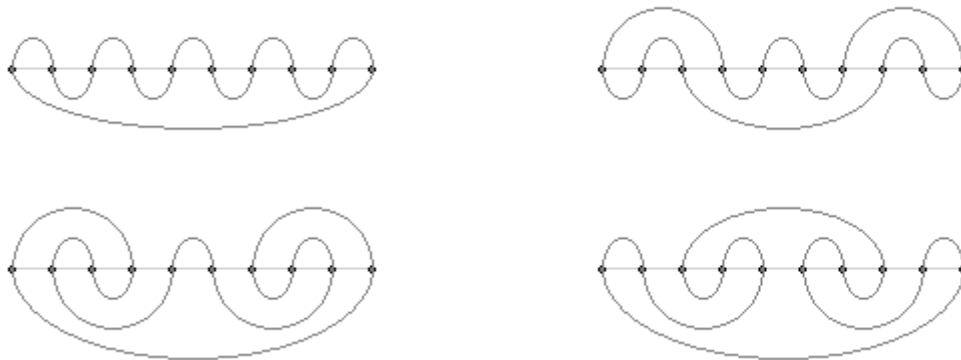# Closed Meander Symmetries

Horizontal symmetry: Possible for all *n*. Each symmetric meander may be composed by adjoining an open meander to its reflection. Below are the 4 non-isomorphic 10-point closed meanders with NS mirror symmetry. Including reflections in the EW mirror this makes a total of 8.

Rotational symmetry: Possible for odd *n*. Each symmetric meander may be composed by adjoining a semi-meander to its image rotated through 180 degrees. Below are the 5 non-isomorphic 10-point closed meanders with rotational symmetry. Including reflections in the EW mirror this makes a total of 10. Because open meanders are a subset of semi-meanders the first four of these correspond to the meanders with horizontal symmetry above.