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Solvable self-avoiding walk and polygon models with large growth rates

I consider subclasses of self-avoiding walks (SAWs) and polygons (SAPs) on two-dimensional regular lattices, for which the generating functions of objects of size n can be explicitly determined. This sets these subclasses apart from the overall SAW and SAP models, for which no expressions for the generating functions are known. These subclasses have exponential growth rates larger than any previously-solved subclasses, and are thus in some sense 'closer' to general SAWs and SAPs than anything that has come before.