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Generating All Simple Convexly-Drawable Polar-Symmetric 6-Venn Diagrams

An n-Venn diagram consists of n curves that divide the plane into 2^n connected regions, one region for each possible intersection of the interiors of the curves. We show there are exactly 406 6-Venn diagrams that (a) have 6 curves, (b) are simple (at most two curves intersect at any point), (c) can be drawn with all curves convex, and (d) are invariant under "polar flips", a type of inversion symmetry. Joint with Frank Ruskey.