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**Applying Burnside's lemma to a one-dimensional Escher problem.**

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Summary: Our point of departure is the paper in which a problem of M. C. Escher is solved using methods of contemporary combinatorics, in particular, Burnside's lemma. Escher originally determined (by laboriously examining multitudes of sketches) how many different patterns would result by repeatedly translating a  $2 \times 2$  square having its four unit squares filled with copies of an asymmetric motif in any of four rotated aspects. In this note we simplify the problem from two dimensions to one dimension but at the same time we generalize it from the case in which a  $2 \times 2$  block stamps out a repeating planar pattern to the case in which a  $1 \times n$  block stamps out a repeating strip pattern.

*Classification:* K20

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