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R. Daniel Hurwitz* (dhurwitz@skidmore.edu), Department of Mathematics and Computer Science, Skidmore College, Saratoga Springs, NY 12866. *Van Kampen Tessellations*.

The geometry of the different tessellations of the plane and the algebra of their symmetry groups make an interesting confluence of mathematics and art. Usually, one starts with tilings and then studies their mathematical structures. I would like to approach from the opposite direction. Let us begin with some groups and examine some tilings they generate. In particular, we begin with a particular construction based on a presentation of a group called a Van Kampen (or R-) diagram which often come up in geometric group theory. These diagrams can be used as a tool to construct isogonal tessellations of the plane. Can we find any attractive ones? (Received September 16, 2014)