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A Cayley map is an embedded Cayley graph with the property that the clockwise rotation of generators is the same at each vertex. This project is driven by the following question: given a finite group and a generating set, what are the minimum and maximum representativities that can be achieved by a corresponding Cayley map? In particular, we are interested in whether we can achieve representativity at least two. In this talk we will discuss the cases in which the generating set has size two or three. We will also discuss the cases of prime-order cyclic groups and making use of primitive roots. (Received January 03, 2007)