

This paper presents a knot invariant called the knot quandle. A quandle is a set with a binary operation, very closely related to a group. The first section of the paper carefully describes two equivalent definitions of quandles. Then the close relationship between quandles and groups is illustrated by constructing explicit functors between the two categories. The paper then shows, with the help of many diagrams, how to associate a quandle to a knot diagram, and that the resulting quandle does not change under Reidemeister moves, making it an invariant of knots. The paper concludes with an example that shows how to apply the functor we saw earlier to the quandle of the trefoil in order to obtain a second invariant, the knot group of the trefoil.