

## USING CRAMER'S RULE TO COLOR KNOTS

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A basic problem in Knot Theory is finding a way to distinguish knots. I will give basic definitions of knots and links and discuss different ways to distinguish between two different knots including Reidemeister moves and knot invariants. One way is a general type of coloring invariant called  $\text{Mod}(n)$  Coloring. I will use the determinant of a knot and Cramer's Rule to show the different colorings for a knot.