

Exploring Knots – Class Handout

Your group has a bag containing a collection of knots, each coded with a different color. The colors allow you to refer to a specific knot when discussing things with your group or the class.

In mathematics, a knot is defined as a piece of string with the ends connected. You can do anything you like to your knots except you are not allowed to cut the string or disconnect the ends. Your job is to figure out which knots are the same and which are different. To get started, try to answer the questions below. Remember that you can refer to the knots by color.

1. Are there any pairs of knots that you think are the same? Which ones? How can you tell?
2. What does it mean for two knots to be “the same”?
3. Are there any pairs of knots that you think are “different”? Which ones? How can you tell?
4. What does it mean for two knots to be “different”?