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This paper is structured in a way that simplifies the general understanding of knots in mathematics and then reinforces that knowledge with an analysis of the complexity of tangles. It introduces some of the basic terms used in knot theory and describes how to work with rational tangles, calculate the fundamental group for different knots, and model Wirtinger presentations. The new results are as follows: Two rational knots are equivalent if and only if one is composed of a tangle with a numerator and a denominator that are prime numbers, and the second knot is composed of a tangle of the numerator, such that  $a < b$  and  $b$  is one more or less than a multiple of  $a$ . The second result shows that even though we assign the virtual operator  $T(x)$  to the virtual arcs of a knot in the Wirtinger presentation, the resulting fundamental group may not reflect virtual crossings if the virtual crossings are consecutive. (Received September 17, 2013)