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Starting in chapter 6, The Knot Book introduces the Jones polynomial through an elementary construction (due to this reviewer) called the bracket polynomial. The bracket polynomial is based on the simplest properties of knot and link (more than one loop) projections, and it explicitly embodies the relationships between statistical mechanics and knot theory that have pervaded the subject ever since Jones made his discovery. With a little work, the reader will go from being a naive knot topologist on page 147 to being equipped to prove the chirality of the trefoil on page 155. This is the watershed. It is the fond hope of this reviewer that every reader of The Knot Book will work through these critical eight pages of the

The book continues with material on the new invariants of knots and links and on applications to alternating knots. Chapter 7 details applications to knots in biology (DNA), chemistry, and physics. Later chapters discuss graphs, statistical mechanics, three-dimensional topology, and knots in higher dimensions.

Adams's *Knot Book* is a terrific addition to the assemblage of books on knots. It

deserves to be on the shelf of every natural scientist, sailor, climber, magician, and mathematician.

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