

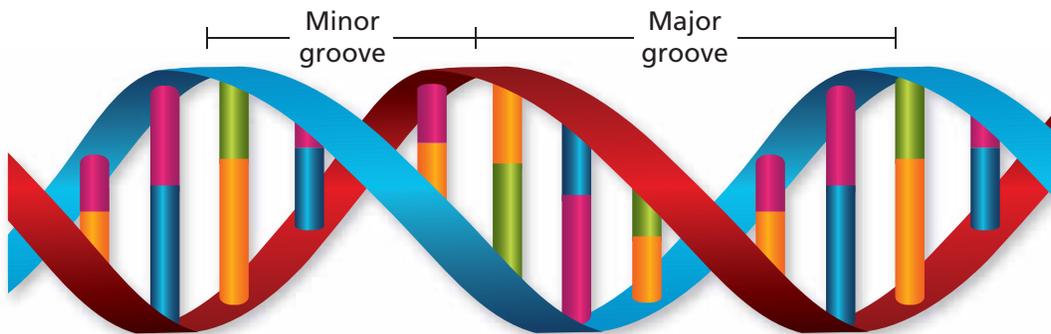
Section 7.4

DNA Deoxyribonucleic acid (DNA) is the genetic material in all known living organisms and some viruses. DNA contains two strands wrapped around each other in a double helix. In Exercises 23 and 24, use the Internet.

- Describe how the Fibonacci sequence is related to each full cycle of a DNA double helix.
- Determine whether the golden ratio applies to a DNA double helix.



B-form DNA In B-form DNA, the intertwined strands make two grooves of different widths, referred to as the major groove and the minor groove. In Exercises 25 and 26, use the B-form DNA shown.



- Use the Internet to describe how the Fibonacci sequence is related to the major and minor grooves of B-form DNA.
- Determine whether the golden ratio applies to B-form DNA.



DNA Cross-section

In Exercises 27 and 28, use the cross-sectional view of a DNA double helix shown.

- Show how two pentagons can be used to construct the cross-sectional view of a DNA double helix.



- How is the cross-sectional view of a DNA double helix related to the golden ratio?