Problem-Solving Strategy: Find a Number Pattern

Problem  We measure one year by the time it takes Earth to orbit the sun. To make our calendars match Earth’s exact orbit time, we have leap years. Leap years add one extra day to the year. In the 21st century, the first four leap years are 2000, 2004, 2008, and 2012. Following this pattern, what will be the fifth leap year in the 21st century?

1. Which facts in the problem can you use to answer that question?

2. Do the given leap year numbers increase or decrease? What does this tell you about the fifth leap year number?

3. Continue the pattern to find the fifth leap year.

4. What other strategies could you have used to solve the problem?