Leap Year

Topic: if, programming logic, printing

Program Description

Write a Java program that

- takes two integers (*x* and *y*)
- prints out any leap year (one with 366 days) from *x* to *y* A.D.
- prints out the total number of leap years

What is a leap year?

- Any year that is divisible by 4 <u>is</u> a leap year
- Except when it is divisible by 100, in which case it <u>is not</u> a leap year
- Except when it is divisible by 400, in which case it <u>is</u> a leap year
- Examples
  - 1504 is a leap year (has 366 days)
  - 1500 is not a leap year (has 365 days)
  - 1600 is a leap year (has 366 days)

Guidelines

- Name it LeapYear.java
- Your output must <u>exactly</u> match the example below
- Your program should be properly commented

Sample Output

```
Please enter START and END years: 1800 2000
From 1800 to 2000, there are 366 days in these years:
  1804 1808 1812 1816 1820
  1824 1828 1832 1836 1840
  1844 1848 1852 1856 1860
  1864 1868 1872 1876 1880
  1884 1888 1892 1896 1904
  1908 1912 1916 1920 1924
  1928 1932 1936 1940 1944
  1948 1952 1956 1960 1964
  1968 1972 1976 1980 1984
  1988 1992 1996 2000
Total = 49
```