JAVA ASSIGNMENT 4: Leap Year Calculator

Write a method **isLeapYear** with a parameter of type int named **year**.

The parameter needs to be **greater than or equal to 1** and less than or equal to 9999.

If the parameter is not in that range return **false**.

Otherwise, if it is in the valid range, calculate if the year is a leap year and return **true** if it is a leap year, otherwise return **false**.

To determine whether a year is a leap year, follow these steps:

1. If the year is **evenly divisible by 4**, go to step 5.

2. Otherwise, go to step 5.2. If the year is **evenly divisible by 100**, go to step 4

3. Otherwise, go to step 4.3. If the year is **evenly divisible by 400**, go to step 5

4. Otherwise, go to step 5.4. The year is a leap year (it has 366 days). The method **isLeapYear** needs to return **true**.

5. The year is not a leap year (it has 365 days). The method **isLeapYear** needs to return **false**.

The following years **are not leap years**:

1700, 1800, 1900, 2100, 2200, 2300, 2500, 2600

This is because they are evenly divisible by 100 but not by 400.

The following years **are leap years:**

1600, 2000, 2400

This is because they are **evenly divisible by both 100 and 400.**

Examples of input/output:

* isLeapYear(-1600); → should **return false** since the parameter is **not in range (1-9999)**

* isLeapYear(1600); → should **return true** since 1600 is a leap year

* isLeapYear(2017); → should return false since 2017 is **not** a leap year

* isLeapYear(2000); → should **return true** because 2000 is a leap year

NOTE: The method **isLeapYear** needs to be defined as **public static** like we have been doing so far in the course.

NOTE: Do not add a **main** method to solution code.