Java Software Development

Homework 3

Problem Description

- A special number is a positive integer which prime factors only include 2, 3, 5.
- Write a program to determine whether a given number is a special number, and find the n^{th} one.
- For example, `1,2,3,4,5,6,8,9,10,12` is the sequence of the first 10 special numbers.
- Given an equation `X=M`, you should print whether `M` is a special number. Or given another equation `Y=N`, you should print the N^{th} special number. Each answer must be in a line.
- For example:
  - Given `X=5`, you should print `true`.
  - Given `Y=9`, you should print `10`.

Sample Input and Output

Keyboard Input	X=8
Output	true

Keyboard Input	X=13579
Output	false

Keyboard Input	Y=10
Output	12

Keyboard Input	Y=999
Output	51018336

Submission

- Please archive your source code to `STUDENT_ID.zip` (download the example zip file from Moodle) and upload to Moodle before deadline.
- Your zip file should follow the following format.
  - `STUDENT_ID.zip`

    ```
    |- src
    |- META-INF
    |    |- MANIFEST.MF
    ```

  - All the source files (*.java) are put in the src directory.
  - The entry point (i.e. main class) of the program is specified in the MANIFEST.MF file.
- No late submission is accepted.