

PSDD – Creating Code - TASK 3 - Bugs

To complete this worksheet you require a working webserver, e.g. WOS (website on a stick).

Aim

The aim of this worksheet is to:
Develop an algorithm and then the php program using the design provided

Skills and knowledge

Algorithms, Text files, reading and writing,
While loops, Binary selection
Creating and testing php code

Outline:

You have been given a problem definition and test data. You need to design an algorithm that solves the problem then create and test the php program code.

Problem Definition

You do not like bugs. This is unfortunate, since your town has been taken over by a plague of small insects. Thankfully these insects only come out every seven years – they appear all over town, make very loud noises for a few months, lay their eggs and then disappear, until a new generation of insects emerges from the eggs seven years later and the cycle starts over again.

It is well known that the insect only emerge during years that are exact multiples of seven. For instance, they appeared in the years 1995 and 2002 (since $1995 = 7 * 285$ and $2002 = 7 * 286$). You do a quick calculation and deduce that they will reappear in the year 2009. Flipping your calculator several years forward, you start making your plans for a very long holiday.

You must write a program to help you and your townsfolk plan ahead for the appearance of these insects in years to come. Your program must read in a year and output the first year after that in which the insects will emerge.

Input

The input will consist of a single line containing a single integer. This integer will represent a year and will be between 1 and 10000 inclusive. Input from either a form or from a file.

Output

Your output should consist of a single line containing a single integer. This integer must be the first year after the input year in which the insect will reappear. Output to either a file or to the screen.

Test data

Sample input	Sample output
2004	2009
1991	1995