

## ISBN CHECKER



Each book published is given a unique identifier called an International Standard Book Number or ISBN for short.

The ISBN is 13 characters long if assigned from 1 January 2007 and 10 characters long if assigned before that date.

This task has been designed to test your ability to create a form and process the user input.

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## TASK

Design a HTML form to allow a user to input a **10 digit** ISBN.

Send this data to a processing script and then check if it is a valid ISBN number.

Output a valid or invalid message to the user.

Sample valid ISBN: 1573980137

## HOW TO CHECK IF AN ISBN IS VALID (Length of 10)

- STEP 1: Multiply each digit of the ISBN by a weighted value.  
The first digit is multiplied by 1, the second digit by 2, the third digit by 3 etc.
- STEP 2: Find the total of these multiplied digits.
- STEP 3: If the total is divided by 11 and there is no remainder then the ISBN is valid.

### EXAMPLE

Consider the ISBN: 0072296542

- STEP 1:
- |   |      |      |
|---|------|------|
| 0 | x 1  | = 0  |
| 0 | x 2  | = 0  |
| 7 | x 3  | = 21 |
| 2 | x 4  | = 8  |
| 2 | x 5  | = 10 |
| 9 | x 6  | = 54 |
| 6 | x 7  | = 42 |
| 5 | x 8  | = 40 |
| 4 | x 9  | = 36 |
| 2 | x 10 | = 20 |
- STEP 2:  $0 + 0 + 21 + 8 + 10 + 54 + 42 + 40 + 36 + 20 = 231$
- STEP 3:  $231 / 11 = 21$  (i.e. no remainder)

Therefore the ISBN is valid

## HINTS AND TIPS

You may wish to check for spaces and/or use of the dash and replace these prior to performing the calculation.

You can check the string length in the form input field or use `strlen()` when processing.

Convert the user input string into an array using `str_split()`.

Loop through each number of the array and process.

Use modulus to check if the total is divisible by 11 and leaves a remainder.