

Quiz-1: CS 203 Web Technologies

Duration: 90 mins

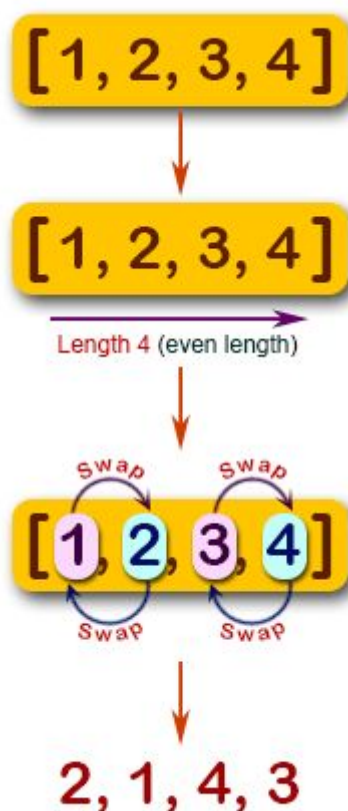
1. Write a JavaScript program to calculate multiplication and division of two numbers (input from user). Implement the HTML file and JS file for this problem. *Sample form* :

1st Number :

2nd Number:

The Result Is :
120

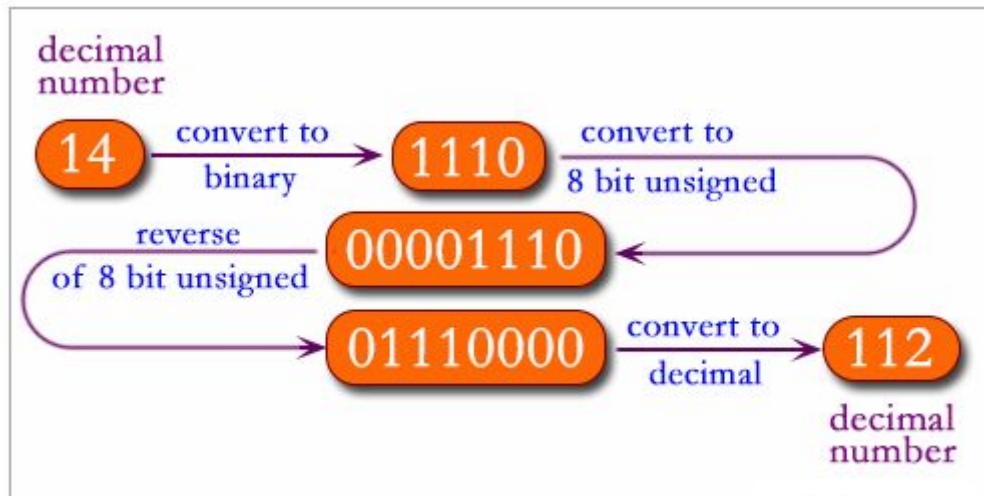
2. Write a JavaScript program to swap pairs of adjacent digits of a given integer of even length.



3. Write a JavaScript program to reverse the order of the bits in a given integer.

56 -> 111000 after reverse 7 -> 111

234 -> 11101010 after reverse 87 -> 1010111



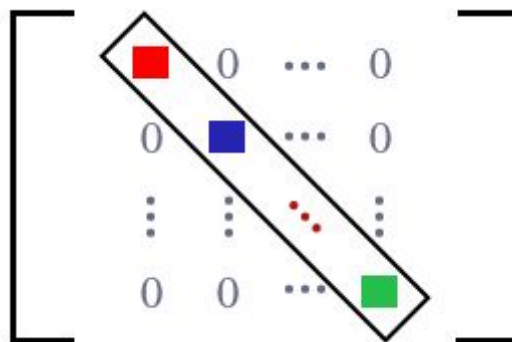
4. Write a JavaScript program to check whether a matrix is a diagonal matrix or not. In linear algebra, a diagonal matrix is a matrix in which the entries outside the main diagonal are all zero (the diagonal from the upper left to the lower right).

Example:

$[[1, 0, 0], [0, 2, 0], [0, 0, 3]] = \text{true}$

$[[1, 0, 0], [0, 2, 3], [0, 0, 3]] = \text{false}$

The matrix below is diagonal matrix



Submission instructions:

- You may use offline documentation on HTML, CSS, JavaScript.
- You must submit an archive file.
- Submitted file must be named with your name, surname, and group. (e.g. nurlan.shaidullaev.com18.zip)
- The file must contain the web site folder with INDEX.HTML page located in the root of the folder and all JS files in the “scripts” folder.
- Each solution must be coded in separate JS file. No JavaScript inside HTML web page is allowed.
- Web page must contain separate button for each solution. When clicked the JS solution must be triggered.
- All JS scripts must be coded as Functions.

Penalty of -10 points will be applied for violation of each instructions.