

## Assignment - 5 (Due on April 23, 2024)

Create the following form, which takes inputs from the user for the length of an array of arbitrary size. The array should be initialized with random integers from 1 to 10 (you can use the `mt_rand()` function in PHP).

The screenshot shows a web interface for a statistics tool. At the top, there is a navigation bar with the text "Statistics ToolBox" and links for "Home", "Link", "Dropdown", and "Disabled". To the right of the navigation bar is a search bar with the placeholder text "Search" and a green "Search" button. Below the navigation bar is a large gray rectangular area containing a form. The form has a title "Enter size of an array:" followed by a text input field with the placeholder "Type in an integer". Below the input field is a label "Select an option" and a dropdown menu currently showing "Compute Mean". At the bottom of the form is a blue "Submit" button.

The select list has three options: "1. Compute Mean, 2. Compute Median and 3. Compute Mode."

This screenshot shows the same web interface as the previous one, but with the dropdown menu open. The dropdown menu displays three options: "Compute Mean" (which is selected and highlighted with a blue bar), "Compute Median", and "Compute Mode". The rest of the form, including the navigation bar, search bar, and "Submit" button, remains the same.

If you choose option 1 and press “submit”, it should compute the mean of numbers in the array:

**Statistics ToolBox** [Home](#) [Link](#) [Dropdown](#) Disabled

Search

Enter size of an array:

Select an option

Initialized array -->

3 1 10 8 1 8 1 7 5 4

Mean = 4.8

If you choose option 2 and press “submit”, it should compute the median of numbers in the array (the middle-most value when the array is in sorted order):

**Statistics ToolBox** [Home](#) [Link](#) [Dropdown](#) [Disabled](#)

Enter size of an array:

Select an option

Initialized array -->

1 9 7 7 6 10 9 6 10 4

Median = 7

If you choose option 3 and press “submit”, it should compute the mode (the number with the highest frequency in the array):

**Statistics ToolBox** [Home](#) [Link](#) [Dropdown](#) [Disabled](#)

Enter size of an array:

Select an option

Initialized array -->

1 5 7 8 2 4 9 9 1 2

Mode = 1

Mode = 2

Mode = 9

If there are no modes in the array (i.e., all values occur with equal frequency), then it should display there are no modes:

Statistics ToolBox

Home

Link

Dropdown ▾

Disabled

Search

Search

Enter size of an array:

5

Select an option

Compute Mode

Submit

Initialized array -->

3 2 10 9 5

There is no mode in the set.