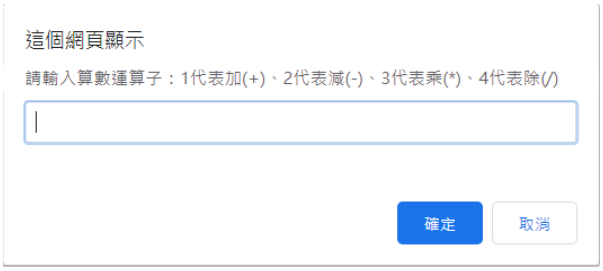
Exercise 5

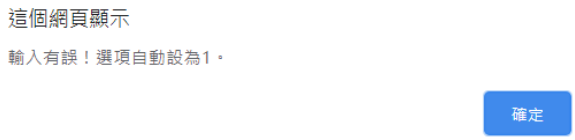
1. Please develop a webpage to let users perform the four fundamental arithmetic operations: addition, subtraction, multiplication, and division.

   (1) Please show the following message to let the user choose the operator:

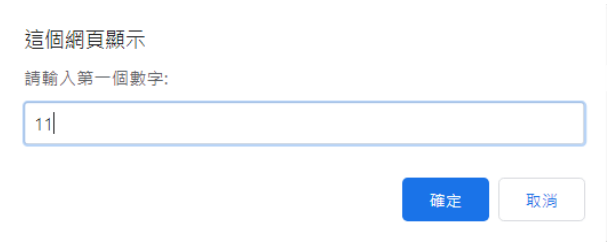
   "請輸入算數運算子：1 代表加(+)、2 代表減(-)、3 代表乘(*)、4 代表除(/)"



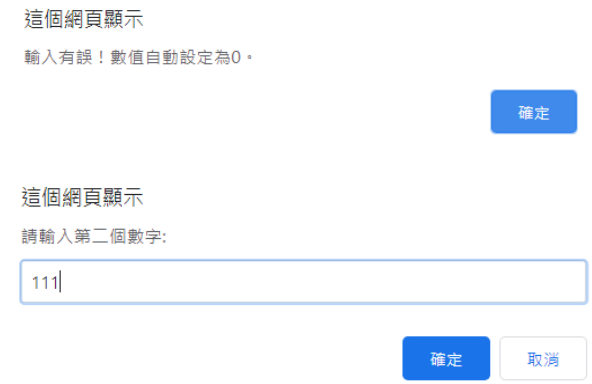
   If the user input is not valid options, please show an error message "輸入有誤！選項自動設為 1。" using a popup window and set the option to 1.



   (2) Let the user input two numbers:

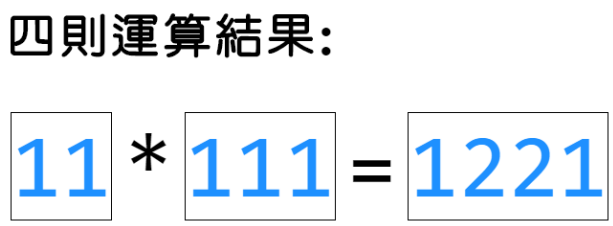


   If the input value is not valid number, please show an error message "輸入有誤！數值自動設定為0。" using a popup window and set the first number to 0.



   Again, if the input value is not valid number, please show an error message "輸入有誤！數值自動設定為 0。" using a popup window and set the second number to 0.

(3) Finally, the webpage shows the results of the arithmetic operation:



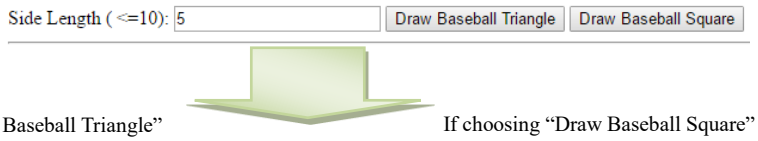
Other requirements:

Please modify the CSS in ex-4-2-ui.html to (1) add a solid **border** in *dodgerblue* for numbers and (2) let all elements display **side-by-side**.

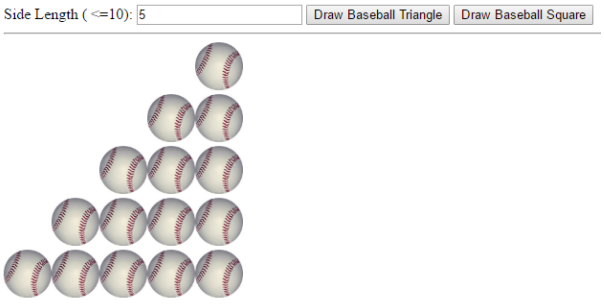
Hint:

- Please study how to set values to HTML elements using DOM (document object model).
- "Side-by-side" is easy to realize by a CSS property.
- isFinite(): https://www.w3schools.com/jsref/jsref_isfinite.asp.

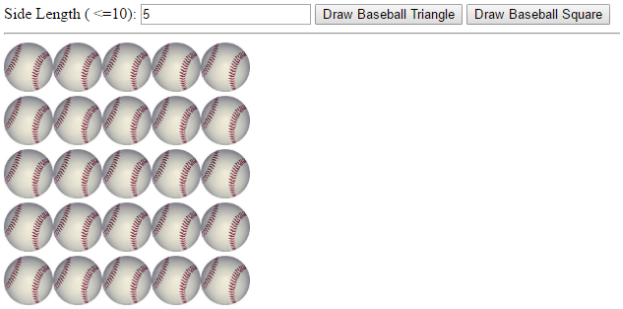
2. Develop a JavaScript program that displays the images of baseball based on the user's input (type: number). The user can input the side length and choose to draw a triangle or to draw a square. The expected user interfaces are as follows: (The image file is *baseball.jpg*. Should re-size the image to 50x50px)



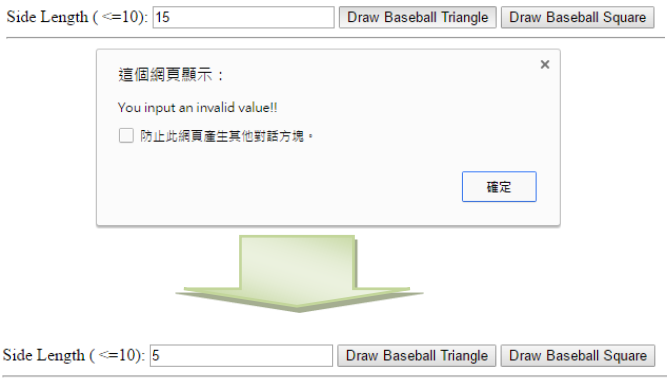
If choosing "Draw Baseball Triangle"



If choosing "Draw Baseball Square"



Besides, if the user inputs an invalid value (< 0 or >10), this program will show a popup dialog, and set the input value as the default value 5.



Hint:

- The images are suggested to be shown in a *div* element.
- Suggest to use "*blank.png*" to leave spaces to build correct triangles.