

# CODE CHALLENGE WORKED EXAMPLE: AVERAGES



For each challenge, solve it using:

- A flowchart
- Pseudocode (see [GCSE Pseudocode Guide](#))
- Programme code (any high level language will do)

## The challenge: Averages

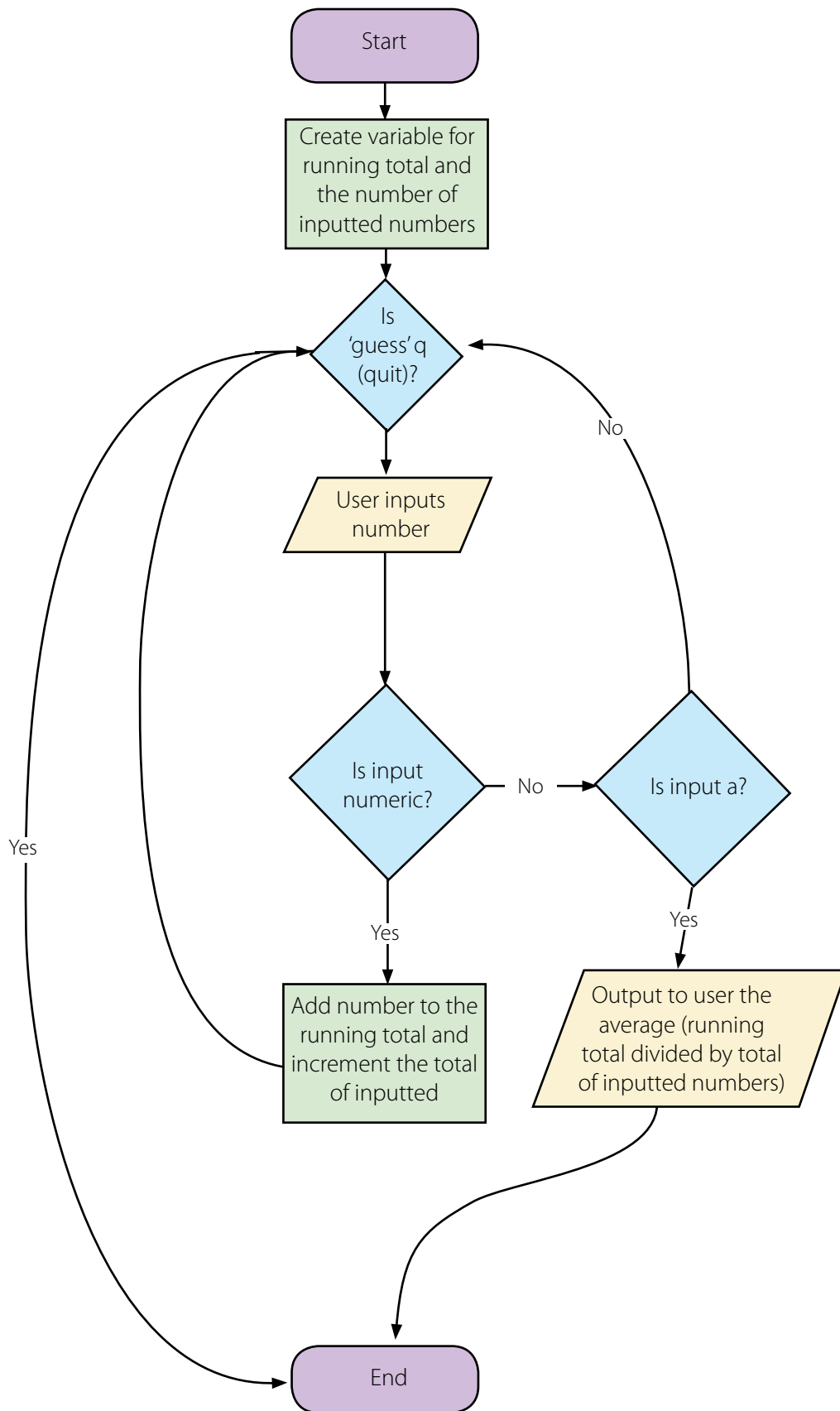
Make a program that asks the user for a series of numbers until they either want to output the average or quit the program.



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The flowchart



**Pseudocode**

```
runningTotal = 0
noNumbers = 0
usrInput = ''

//keep looping until the user wants to quit
while usrInput != 'q'
    usrInput = input("Please enter a number (a to produce average) (q to quit) : ")
    //check to see if the user has input a number or not
    if usrInput.isnumeric()
        runningTotal = runningTotal + int(usrInput)
        noNumbers = noNumbers + 1
    //after the average has printed, we break out of the loop to halt the program
    elseif usrInput == 'a'
        print("The average of the inputted numbers is " + str(runningTotal/noNumbers))
        break
```



**Program code (with comments):**

```

runningTotal = 0
noNumbers = 0
usrInput = ''

#keep looping until the user wants to quit
while usrInput != 'q'

    usrInput = input("Please enter a number (a to produce average) (q to quit) : ")
    #check to see if the user has input a number or not
    if usrInput.isnumeric():
        runningTotal = runningTotal + int (usrInput)
        noNumbers = noNumbers + 1

    #after the average has printed, we break out of the loop to halt the program
    elif usrInput == 'a':
        print("The average of the inputted numbers is " + str (runningTotal/noNumbers))
        break

```



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