

While Loops		
<p>Try this code:</p> <pre> response = "n" while response == "n": response = input("Is Mr. Clarkson awesome? ") </pre>	What colour is the word while ?	
	What does this mean?	
	What happens to the indented line?	
	How many times does this happen?	
	What happens if you type in "N" instead of "n"?	
<p>Try it a different way:</p> <pre> response = "n" while response != "y": response = input("Is Mr. Clarkson awesome? ") </pre>	How does this program behave differently?	
	Give the name of the variable in the first line.	
	What data type is that variable?	
	Explain the purpose of that variable.	

While Loops

While loops for validation

```
size = int(input("Shoe size? "))
while size > 13:
    print("Error, must be 1-13")
    size = int(input("Shoe size? "))
```

When does the loop repeat?

What would happen if there wasn't an input statement **before** the loop?

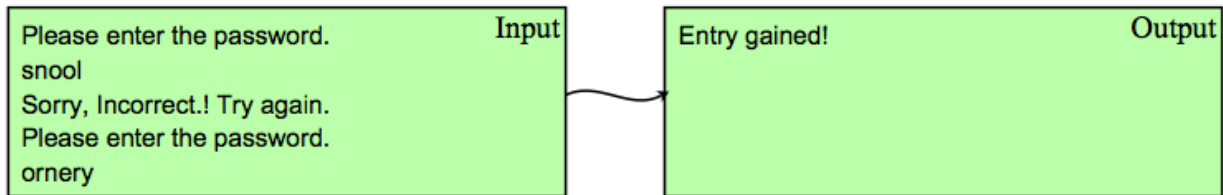
What would happen if there wasn't an input statement **inside** the loop?

Explain what is meant by **validation**

While Loops

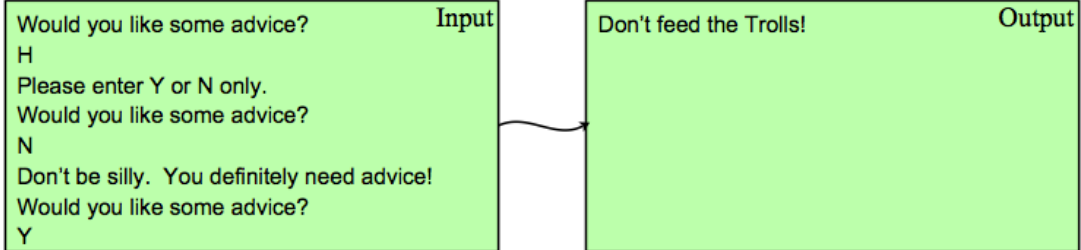
Password

A program is required to continually ask a user to enter a password until it has been entered correctly. The program should give the user an error message if they enter the wrong password. A message "Entry gained!" should be displayed when the password is entered correctly. You may choose the password.



While Loops

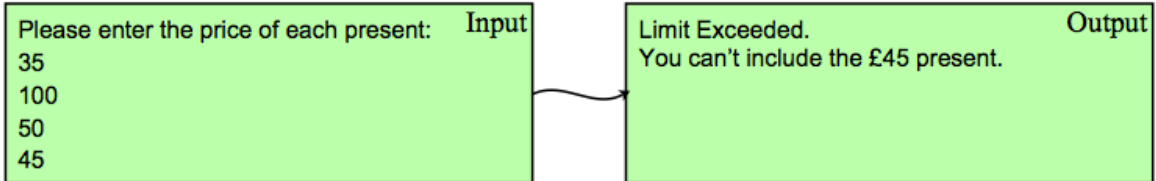
You have decided that your user definitely requires some advice. Edit program 17 so that will continue to ask if your user wants advice until they enter Y. Include an amusing message if they enter N and an error message if they don't enter Y or N.



While Loops

No More Presents

You have £200 to spend on your birthday. Write a program that will ask you to enter the price of each present you want until your total is over £200. The program should produce the output shown.

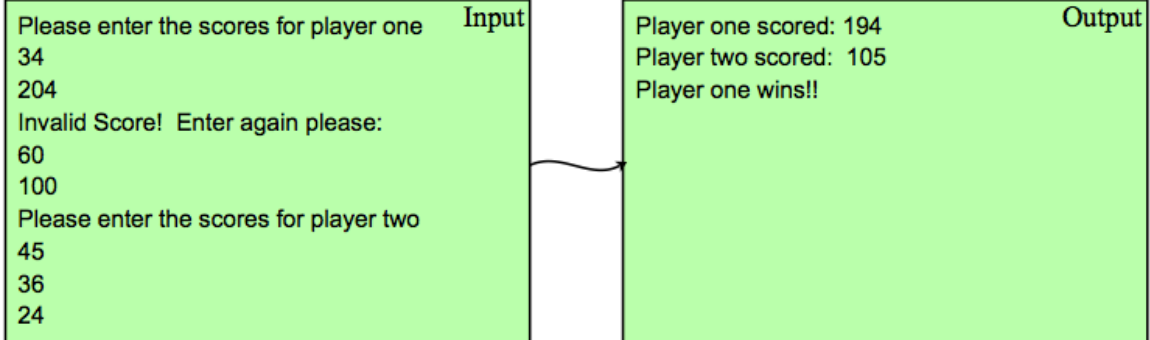


While Loops

Pailwater Darts Tournament (Part 2)

The minimum and maximum scores that can be achieved with three darts are 0 and 180.

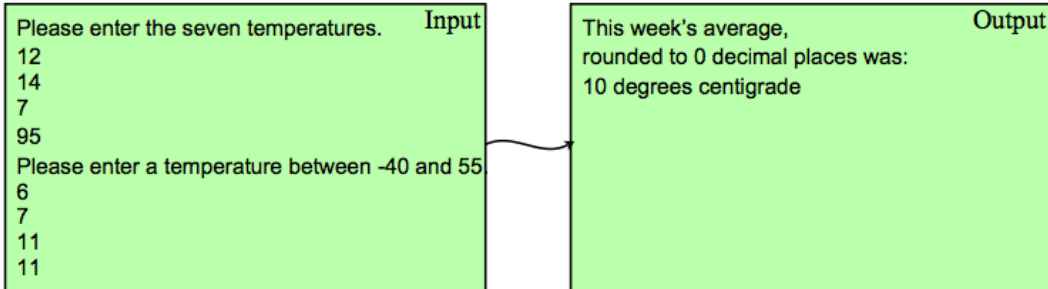
Edit program 28 to validate your input (make sure the scores entered are between 0 and 180). Ensure you give your user an appropriate error message if they type in a wrong value.



While Loops

Average Temperature (Part 2)

Adapt program 25 to validate each temperature. Inputs should be between -40°C and 55°C. As before, the program should output the average temperature for the week but this time the output should be displayed as an integer.



While Loops

Guess the Number

A game is created where a user is required to guess an unknown number between 1 and 100. Each time the user guesses the program informs them if their guess is too high, too low or correct. The guessing game only finishes when the user's guess matches the unknown number. An example of the program running (input and output) is shown below.

Input & Output

```
Guess the hidden number between 1 and 100.  
Enter your guess.  
45  
Your guess is too low. Try again.  
86  
Your guess is too high. Try again.  
67  
Your guess is too high. Try again.  
50  
Your guess is too low. Try again.  
54  
Your guess is too high. Try again.  
52  
Correct! Well Done.
```