

## Functions: Exercises

**Q1)** Write a function that takes a temperature in fahrenheit and returns the temperature in celsius.

Input	Output
0	32
45	113
-3	26.6

**Q2)** Write a program that calculates the mean of a list of numbers. The program should continuously ask the user for an integer until they enter blank input. The sum of the integers and the total number of integers provided should be passed to a function that calculates the mean. Here's the function definition to help you get started:

```
def calculate_mean(total_sum, num_items):  
    pass
```

Input	Output
4 3 2 6	3.75

**Q3)** In a previous exercise we read a csv file full of colours and outputted their RGB code, Hex code and name. We're going to complete the same exercise, but this time using functions.

Two function definitions are provided below. `read_csv_file` takes a filepath (string) and returns the contents of that file as a list. `format_colour_line` takes the list of data for a specific colour, the formats and returns the relevant fields. Your task is to complete these functions.

```
def read_csv_file(filepath):  
    return
```

```
def format_colour_line(colour_data):  
    return
```

Input	Output		
colours_20.csv	RGB	HEX	English
	190-189-127	#BEDD7F	Green beige
	194-176-120	#C2B078	Beige
	198-166-100	#C6A664	Sand yellow
	229-190-001	#E5BE01	Signal yellow
	205-164-052	#CDA434	Golden yellow
	169-131-007	#A98307	Honey yellow
	228-160-016	#E4A010	Maize yellow
	220-156-000	#DC9D00	Daffodil yellow
	138-102-066	#8A6642	Brown beige
	199-180-070	#C7B446	Lemon yellow
	234-230-202	#EAE6CA	Oyster white
	225-204-079	#E1CC4F	Ivory
	230-214-144	#E6D690	Light ivory

	237-255-033	#EDFF21	Sulfur yellow
	245-208-051	#F5D033	Saffron yellow
	248-243-053	#F8F32B	Zinc yellow
	158-151-100	#9E9764	Grey beige
	153-153-080	#999950	Olive yellow
	250-210-001	#FAD201	Traffic yellow
colours_213.csv	RGB Code	HEX Code	English Name
	190-189-127	#BEBD7F	Green beige
	194-176-120	#C2B078	Beige
	198-166-100	#C6A664	Sand yellow
	229-190-001	#E5BE01	Signal yellow
	205-164-052	#CDA434	Golden yellow
	169-131-007	#A98307	Honey yellow
	228-160-016	#E4A010	Maize yellow
	220-156-000	#DC9D00	Daffodil yellow
	138-102-066	#8A6642	Brown beige
	199-180-070	#C7B446	Lemon yellow
	234-230-202	#EAE6CA	Oyster white
	225-204-079	#E1CC4F	Ivory
	230-214-144	#E6D690	Light ivory
	237-255-033	#EDFF21	Sulfur yellow
	245-208-051	#F5D033	Saffron yellow
	248-243-053	#F8F32B	Zinc yellow
	158-151-100	#9E9764	Grey beige
	153-153-080	#999950	Olive yellow
	250-210-001	#FAD201	Traffic yellow
	174-160-075	#AEA04B	Ochre yellow
	255-255-000	#FFFF00	Luminous yellow
	157-145-001	#9D9101	Curry
	244-169-000	#F4A900	Melon yellow
	(etc... until colour 213)		

**Q4)** In a previous exercise we wrote a program that outputs a receipt for grocery items. Modify this program to use a function to calculate the total cost for each item. A function definition is provided to get you started:

```
def calculate_cost(unit_price, number_purchase):
    return
```

Input	Output
1	====Izzy's Food Emporium====
3	Baby Spinach        \$2.78
2	Hot Chocolate      \$11.10
1	Crackers            \$4.20
4	Bacon                \$9.00
2	Carrots              \$2.24
	Oranges              \$6.16
	=====
	\$35.48