

# Lab 1

## Lab01 Starting.ipynb

1. Write a program that prompts the user to enter the number of apples and bananas they ate. Each apple contains 95 calories, and each banana contains 105 calories. Calculate and display the total calorie intake. (20%)

### Test Cases

Test Case No	Input	Output
1	1, 1	Total calorie intake: 200 calories <sup>1</sup>
2	0, 3	Total calorie intake: 315 calories
3	4, 2	Total calorie intake: 590 calories
Your Test Case		

2. Write a program that reads a number from the user representing a price, increases it by 15%, and displays the final amount. (20%)

### Test Cases

Test Case No	Input	Output
1	100	Price after 15% increase: \$115.00
2	0	Price after 15% increase: \$0.00
3	49.99	Price after 15% increase: \$57.49
Your Test Case		

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<sup>1</sup> The output is expected to be the same syntax as provided, including punctuation.

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3. Write a program that reads a liquid volume in **liters** and converts it to:

Gallons (1 liter = 0.264172 gallons)

Quarts (1 liter = 1.05669 quarts)

Cups (1 liter = 4.22675 cups)

**Display all three results with exactly two decimal places, using the format shown in the Output cells. (20%)**

## Test Cases

Test Case No	Input	Output
1	0	0.00 liters is 0.00 gallons. 0.00 liters is 0.00 quarts. 0.00 liters is 0.00 cups.
2	2	2.00 liters is 0.53 gallons. 2.00 liters is 2.11 quarts. 2.00 liters is 8.45 cups.
3	5.5	5.50 liters is 1.45 gallons. 5.50 liters is 5.81 quarts. 5.50 liters is 23.25 cups.
Your Test Case		

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4. .Write a program that reads the total wall area from the user input in square feet and calculates how many gallons of paint are required to cover it. (20%)
- 1 gallon of paint covers 350 square feet.
  - Output should be rounded to **2 decimal places**.

## Test Cases

Test Case No	Input	Output
1	250	We need 0.71 gallon(s) of paint.
2	350	We need 1.00 gallon(s) of paint.
3	740	We need 2.11 gallon(s) of paint.
Your Test Case		

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5. Write a program that reads a **five-digit zip code** and prints each digit separated by dashes. **(20%)** For example, the input 16384 is displayed as
- 1-6-3-8-4

## Test Cases

Test Case No	Input	Output
1	12345	Digits in zip code: 1-2-3-4-5
2	90210	Digits in zip code: 9-0-2-1-0
3	10001	Digits in zip code: 1-0-0-0-1
Your Test Case		