Lab: Conditional Statements

1. Guess the Password

Write a function for checking a password, which:

- Receives a string that holds a password
- Prints **"Welcome"** if the password is **"s3cr3t!"**
- Prints **"Wrong password!"** in all other cases

Examples

input	output
s3cr3t!	Welcome
qwerty	Wrong password!

2. Boiling Water

Write a function to check for boiling water, which:

- Receives a number: the water temperature (in °C)
- Prints "The water is boiling" if the number > 100
- Prints "The water is not hot enough" in all other cases

Examples

input	output
104.8	The water is boiling
29	The water is not hot enough

3. Speed Info

Write a function to check for fast / slow speed, which:

- Receives a number (speed)
- Prints "Slow" if the number <= 30
- Prints "Fast" if the number > 30

Examples

input	output
30	Slow
60	Fast

4. Area of Figures

Write a function to calculate figure area, which:

- Receives the type of the figure (string)
- Receives the size of the figure (number)
- Checks if the figure is square or circle
- Prints the calculated area formatted to the second decimal
- Formula for calculating the area of the square: **size * size**
- Formula for calculating the area of the circle: **3.14159 * size * size**

Example

input	output
square 5	25.00
circle 3	28.27

5. Ticket Price

Write a function to calculate ticket price, which:

- Receives a ticket type: either "student" or "regular"
- Prints the price in the following format "${price}":
  - Student ticket price: 1.60
  - Regular ticket price: 1.00
  - For invalid type "Invalid ticket type!"

Examples

input	output
student	$1.60
regular	$1.00
special	Invalid ticket type!

6. Coffee Shop

Write a function to calculate the price for a drink, which:

- Receives a drink name: either "coffee" or "tea"
- Receives an extra: either "sugar" or "no"
- Prints the price in format "Final price: ${price}"

Prices:

- Coffee: 1.00
- Tea: 0.60
- Sugar: 0.40

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Examples

input	output
coffee sugar	Final Price: $1.40
tea no	Final Price: $0.60

7. Valid Triangle

Write a function to check is a triangle is valid, which:

- Receives 3 numbers: the sides of a triangle
- Checks if each side is less than the sum of the other 2
- Prints "Valid Triangle" if the above condition is met
- Prints "Invalid Triangle" otherwise

Example

input	output
3 4 5	Valid Triangle
8 4 3	Invalid Triangle
5 12 6	Invalid Triangle