Validate My IP

You're part of a team developing a new networking application that needs to accept user input for IP addresses. Before the application can process the IP addresses, it must validate them to ensure they're in the correct format. Your task is to create a Python script that can differentiate between valid and invalid IP addresses.

Background

An **IP address** is a numeric identifier for a device connected to a network that uses the Internet Protocol. It consists of four numbers separated by dots (periods), where each number is called an *octet*. Each octet can range from 0 to 255. For example, 192.168.1.1 is a valid IP address. 👍

Instructions

1. Write a Python code that checks if the input string is a valid IP address. The code should be able to classify the IP as `True` if it is a valid IP, or `False` otherwise. The criteria for a valid IP address are:
    - It must have exactly four octets (four sets of numbers separated by dots).
    - Each octet must be an integer ranging from 0 to 255.
    - No leading zeros are allowed in any octet (e.g., `192.168.01.1` is invalid 👎).

2. You are required to test the following IP addresses to determine their validity.
    - `192.168.1.1`
    - `256.100.50.25`
    - `123.45.67`
    - `172.16.254.1`
    - `10.0.0.256`
    - `192.168.01.1`
3. Print the returned results as seen in the Example output.

Example Output

```
18.18.18.18: Valid
10.01.10.01: Invalid
.
.
.
```

To submit

Submit you code in a Python script called `validate_ip.py`