You are given three IP addresses: 10.1.1.1, 172.16.5.10, and 192.168.1.5.

Task: Identify the class of each IP address (Class A, B, or C). What is the default subnet mask for each class?

Provide the range of IP addresses for each class.

Identifying the Class of Each IP Address

1. **10.1.1.1**:
    - The first octet is **10**.
    - **10** falls in the range **1-126**, so it is a **Class A** address.
2. **172.16.5.10**:
    - The first octet is **172**.
    - **172** falls in the range **128-191**, so it is a **Class B** address.
3. **192.168.1.5**:
    - The first octet is **192**.
    - **192** falls in the range **192-223**, so it is a **Class C** address.

Default Subnet Masks for Each Class

- **Class A**: 255.0.0.0 (or /8 in CIDR notation)
- **Class B**: 255.255.0.0 (or /16 in CIDR notation)
- **Class C**: 255.255.255.0 (or /24 in CIDR notation)

Range of IP Addresses for Each Class

1. **Class A**:
    - **Range**: 1.0.0.0 to 127.255.255.255
    - **First octet**: 1–126
    - **Broadcast Range** : 127.0.0.0 – 127.255.255.255 (loopback addresses)
    - **Network bits**: 8
    - **Host bits**: 24
2. **Class B**:
    - **Range**: 128.0.0.0 to 191.255.255.255
    - **Broadcast Range** : 191.255.255.255

- **First octet**: 128–191
- **Network bits**: 16
- **Host bits**: 16

3. **Class C**:
    - **Range**: 192.0.0.0 to 223.255.255.255
    - **Broadcast Range** : 223.255.255.255
    - **First octet**: 192–223
    - **Network bits**: 24
    - **Host bits**: 8