

Name _____

Unlocking the Web's Secrets: IP Addresses and Domain Names

Short Answer Key

1. Answer: DNS (Domain Name System) is a system that translates human-readable domain names into IP addresses, allowing users to access websites and resources on the internet more easily. It acts as a digital directory that matches domain names to their corresponding IP addresses.
2. Answer: IPv6 addresses use a longer combination of numbers and letters, while IPv4 addresses use a shorter series of four numbers separated by periods. IPv6 addresses were introduced to provide a larger pool of addresses due to the limited availability of IPv4 addresses.
3. Answer: A domain name consists of several parts: the subdomain (e.g., "www"), the second-level domain (e.g., "wikipedia"), and the top-level domain (e.g., "org"). The subdomain specifies a particular service or location on the website, the second-level domain identifies the website itself, and the top-level domain can indicate the type or purpose of the website (e.g., ".com" for commercial websites, ".org" for organizations, etc.).
4. Answer: It is essential for websites to renew their domain registrations regularly to maintain ownership of the domain name. If a domain registration expires and is not renewed, it becomes available for others to register. This can lead to the loss of the domain name and potential confusion for visitors who expect to find the website at that address.
5. Answer: A domain registrar is a company or organization responsible for registering and managing domain names on behalf of website owners. They maintain a database of domain names and their corresponding IP addresses, ensuring that the domain names are properly linked to the correct websites. Website owners can register domain names through domain registrars, who typically charge a fee for this service. Registrars also handle domain renewals and provide tools for managing domain settings.

