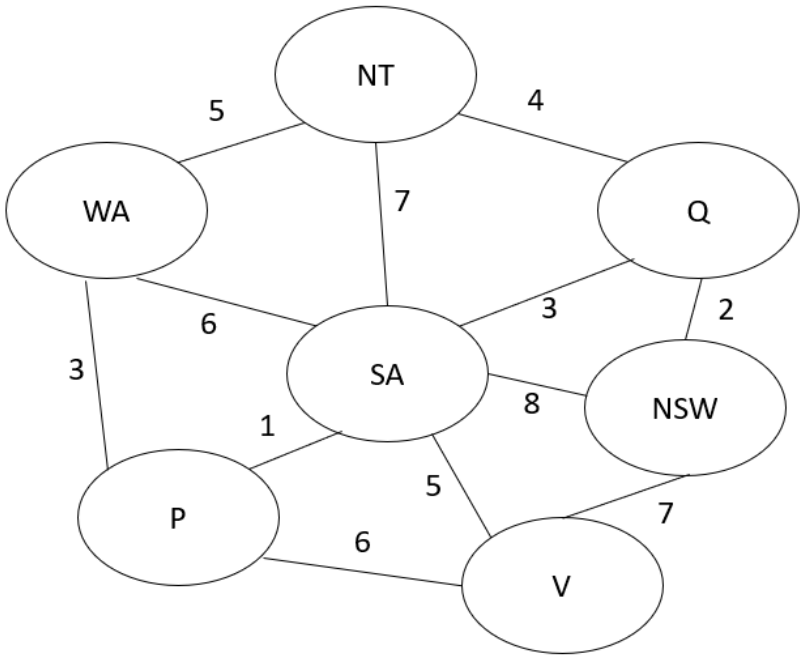
Title: The follow graph represents a map and the time to travel from one place to another.



The **nodes** represent the different locations.

The **edges** represent the time to travel from one place to another. The time is estimated in hours travelling by car.

Nodes: WA (Western Australia), NT (Northern Territory), Q (Queensland), SA (South Australia), NSW (New South Wales), V (Victoria), P (Perth)

Edges: WA-P → 3, P-V → 6, V-NSW → 7, NSW-Q → 2, Q-NT → 4, NT-WA → 5, NT-SA → 7, SA -WA → 6, SA-P → 1, SA-V → 5, NSA-SA → 8, Q-SA → 3

Question 1: What is the shortest root from Western Australia to South Australia?
From the graph we can find out that is someone wants to travel from Western Australia to South Australia the best root is to travel straight there and not take a different path, through the Northern Territory, for example.

Question 2: Which are the neighbor locations to Victoria?
From the graph we can see that Victoria is close to New South Wales and South Australia.

Question 3: Does the Northern Territory has any relationship with Victoria?

It can be seen from the graph, that there are multiple ways to visit Victoria from the Northern Territory, so they have a relationship.