

The diagram illustrates a complex branching structure of Dynkin diagrams for  $E_6$ . The root node is  $E_6(-25, -4, -1)$ . It branches into three main paths:

- Left Path:**
  - $E_6(-1, -25, -4, -1)$  branches into:
    - $E_6(-1, -2, -4, -5, -4, -3)$
    - $E_6(-4, -4, -5, 2, 1)$
    - $E_6(-2, -4, -3)$
- Middle Path:**
  - $E_6(-1, 4, -4, 2, 3)$  branches into:
    - $E_6(-1, 2, -4, -3)$
    - $E_6(-4, -4, 2, 3)$
    - $E_6(-1, 2, 5, -4, -3)$
- Right Path:**
  - $E_6(-5, -4, 1, 2, 3)$  branches into:
    - $E_6(-5, -4, 1, 2, 3)$
    - $E_6(-5, -4, 1, 2, 3)$
    - $E_6(-5, -4, 1, 2, 3)$

The diagram includes labels for each node and the corresponding Dynkin diagram structure.