

The problem is finding the minimum wire cost required by a telecommunication company to connect 6 streets. The linesmen have given you the possible wiring they can perform and the distance between each pole when the wiring is done. As an engineer, you must give them the best possible wiring connections between poles so that the wiring cost is minimal to your company.

Provide the adjacency matrix for the graph provided above. Check the boxes where edges exist between nodes.

| | 0 | 1 | 2 | 3 | 4 | 5 |
|---|----------|----------|----------|----------|----------|----------|
| 0 | | ✓ | | | | V |
| 1 | ~ | | V | V | | |
| 2 | | ✓ | | | | |
| 3 | | ✓ | | | | |
| 4 | | | | | | V |
| 5 | V | | | | V | |

Complete the provided implementation of Prims algorithm (the primMST method of the Graph class). Use the provided comments to replace the *// <---- ADD YOUR CODE HERE ---->* comments.

For example:

| Input | Result | | | | | | | | |
|-------|--------|----|---|---------|---|--|--|--|--|
| 3 | (0, | 1) | - | Weight: | 3 | | | | |
| | (0, | 5) | - | Weight: | 1 | | | | |
| | (1, | 2) | - | Weight: | 2 | | | | |
| | (1, | 3) | - | Weight: | 1 | | | | |
| | (4, | 5) | - | Weight: | 4 | | | | |
| 0 | (0, | 1) | - | Weight: | 3 | | | | |
| | (0, | 5) | - | Weight: | 1 | | | | |
| | (1, | 2) | - | Weight: | 2 | | | | |
| | (1, | 3) | - | Weight: | 1 | | | | |
| | (4, | 5) | - | Weight: | 4 | | | | |
| | | | | | | | | | |