

For adjacent matrix, in Kruskal algorithm, the two-dimension array needs n^2 memory usage and the parent nodes need n memory usage. Therefore, the memory usage of adjacent matrix data structure is $n^2 + n$.

```
1555 1972 642
1691 1983 643
1908 1992 650
1855 1990 652
1463 1464 666
541 1923 669
87 516 693
20 513 733
656 1937 733
1696 1824 740
1749 1987 742
1001 1890 774
706 1004 779
865 866 780
1637 1908 780
83 90 842
565 1927 999
1674 1982 1013
798 1943 1031
1347 1967 1032
1593 1927 1178
1091 1957 1205
22 96 1208
1395 1929 1252
83 487 1395
1890 1991 3703
The total distance of the minimum-spanning tree is: 371466

Process finished with exit code 0
```

For linked-list, in Kruskal algorithm, the memory usage will be half of two-dimension array and add the parent nodes (n), which is $n^2 / 2 + n / 2$.

```
1983 1691 643
1992 1908 650
1990 1855 652
1464 1463 666
1923 541 669
516 87 693
513 20 733
1937 656 733
1824 1696 740
1987 1749 742
1890 1001 774
1004 706 779
866 865 780
1908 1637 780
90 83 842
1927 565 999
1982 1674 1013
1943 798 1031
1967 1347 1032
1927 1593 1178
1957 1091 1205
96 22 1208
1929 1395 1252
487 83 1395
1991 1890 3703
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```