<---------- Testing creating a k-D tree for k = 2 ---------->

Input 2D points:
(1.0, 5.0)
(3.0, 7.0)
(2.0, 12.0)
(4.0, 3.0)
(11.0, 1.0)
(5.0, 2.0)
(9.0, 10.0)

The 2D tree built from these points is:

```
        3: (9.0, 10.0)
    2: (5.0, 2.0)
        3: (11.0, 1.0)
1: (4.0, 3.0)
        3: (2.0, 12.0)
    2: (3.0, 7.0)
        3: (1.0, 5.0)
```

<---------- Testing creating a k-D tree for k = 3 ---------->

Input 3D points:
(3.0, 7.0, 5.0)
(1.0, 12.0, 0.0)
(2.0, 13.0, 16.0)
(4.0, 6.0, 1.0)
(18.0, 1.0, 2.0)
(7.0, 3.0, 3.0)
(16.0, 4.0, 4.0)
(5.0, 5.0, 17.0)

The 3D tree built from these points is:

```
            4: (5.0, 5.0, 17.0)
        3: (16.0, 4.0, 4.0)
    2: (7.0, 3.0, 3.0)
        3: (18.0, 1.0, 2.0)
1: (4.0, 6.0, 1.0)
        3: (2.0, 13.0, 16.0)
    2: (1.0, 12.0, 0.0)
        3: (3.0, 7.0, 5.0)
```

<---------- Testing range search on a k-D tree for k = 3 ---------->

Looking for points between (0.0, 1.0, 0.0) and (4.0, 6.0, 3.0).
Found:
(4.0, 6.0, 1.0)

Looking for points between (0.0, 1.0, 0.0) and (8.0, 7.0, 4.0).
Found:
(4.0, 6.0, 1.0)
(7.0, 3.0, 3.0)

Looking for points between (0.0, 1.0, 6.0) and (17.0, 9.0, 10.0).
Found:
(4.0, 6.0, 1.0)
(7.0, 3.0, 3.0)
(16.0, 4.0, 4.0)
(3.0, 7.0, 5.0)

<---------- Testing completed! ---------->