

## RESULT WITH DISTANCES (Trial 1)

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```
Microsoft Visual Studio Debug Console

1: The point is closer to cluster B
A: 69.8325 , B: 32.2192
2: The point is closer to cluster A
A: 32.3902 , B: 56.2988
3: The point is closer to cluster A
A: 23.1974 , B: 51.2819
4: The point is closer to cluster A
A: 13.3903 , B: 74.6213
5: The point is closer to cluster B
A: 71.8126 , B: 28.7487
6: The point is closer to cluster B
A: 63.5439 , B: 20.2733
7: The point is closer to cluster B
A: 55.3442 , B: 37.5656
8: The point is closer to cluster B
A: 69.5773 , B: 15.1647
9: The point is closer to cluster B
A: 51.754 , B: 36.2079
10: The point is closer to cluster A
A: 42.4956 , B: 46.4989
11: The point is closer to cluster A
A: 30.722 , B: 72.1962
12: The point is closer to cluster B
A: 40.1284 , B: 31.4233
13: The point is closer to cluster A
A: 46.3109 , B: 55.2604
14: The point is closer to cluster B
A: 44.0785 , B: 29.202
15: The point is closer to cluster B
A: 53.4736 , B: 32.7418
16: The point is closer to cluster A
A: 34.1488 , B: 45.952
17: The point is closer to cluster B
A: 72.8027 , B: 26.6682
18: The point is closer to cluster B
A: 54.7059 , B: 53.645
19: The point is closer to cluster A
A: 53.163 , B: 57.5811
20: The point is closer to cluster B
A: 70.5218 , B: 57.7191

C:\Users\Jay\Desktop\CS\Clusters\x64\Debug\Clusters.exe (process 3684) exited with code 0.
Press any key to close this window . . .
```

## RESULT WITHOUT DISTANCES (Trial 2)

```
Microsoft Visual Studio Debug Console

1: The point is closer to cluster B
2: The point is closer to cluster B
3: The point is closer to cluster A
4: The point is closer to cluster A
5: The point is closer to cluster B
6: The point is closer to cluster A
7: The point is closer to cluster A
8: The point is closer to cluster A
9: The point is closer to cluster A
10: The point is closer to cluster A
11: The point is closer to cluster B
12: The point is closer to cluster B
13: The point is closer to cluster B
14: The point is closer to cluster B
15: The point is closer to cluster B
16: The point is closer to cluster B
17: The point is closer to cluster A
18: The point is closer to cluster B
19: The point is closer to cluster A
20: The point is closer to cluster B

C:\Users\Jay\Desktop\CS\Clusters\x64\Debug\Clusters.exe (process 21996) exited with code 0.
Press any key to close this window . . .
```

### Issues Faced:

Learning to use casting to make sure the random value was being generated correctly in float instead of an integer.

```
(int i = 0; i < n1; i++) {
(A + i)->SetX(min_a + static_cast<float>(rand()) * static_cast<float>(max_a - min_a) / RAND_MAX);
(A + i)->SetY(min_a + static_cast<float>(rand()) * static_cast<float>(max_a - min_a) / RAND_MAX);

(int i = 0; i < n2; i++) {
(B + i)->SetX(min_b + static_cast<float>(rand()) * static_cast<float>(max_b - min_b) / RAND_MAX);
(B + i)->SetY(min_b + static_cast<float>(rand()) * static_cast<float>(max_b - min_b) / RAND_MAX);

(int i = 0; i < m; i++) {
point p;
p.SetX(min_m + static_cast<float>(rand()) * static_cast<float>(max_m - min_m) / RAND_MAX);
p.SetY(min_m + static_cast<float>(rand()) * static_cast<float>(max_m - min_m) / RAND_MAX);

cout << i + 1 << ": ";
```