

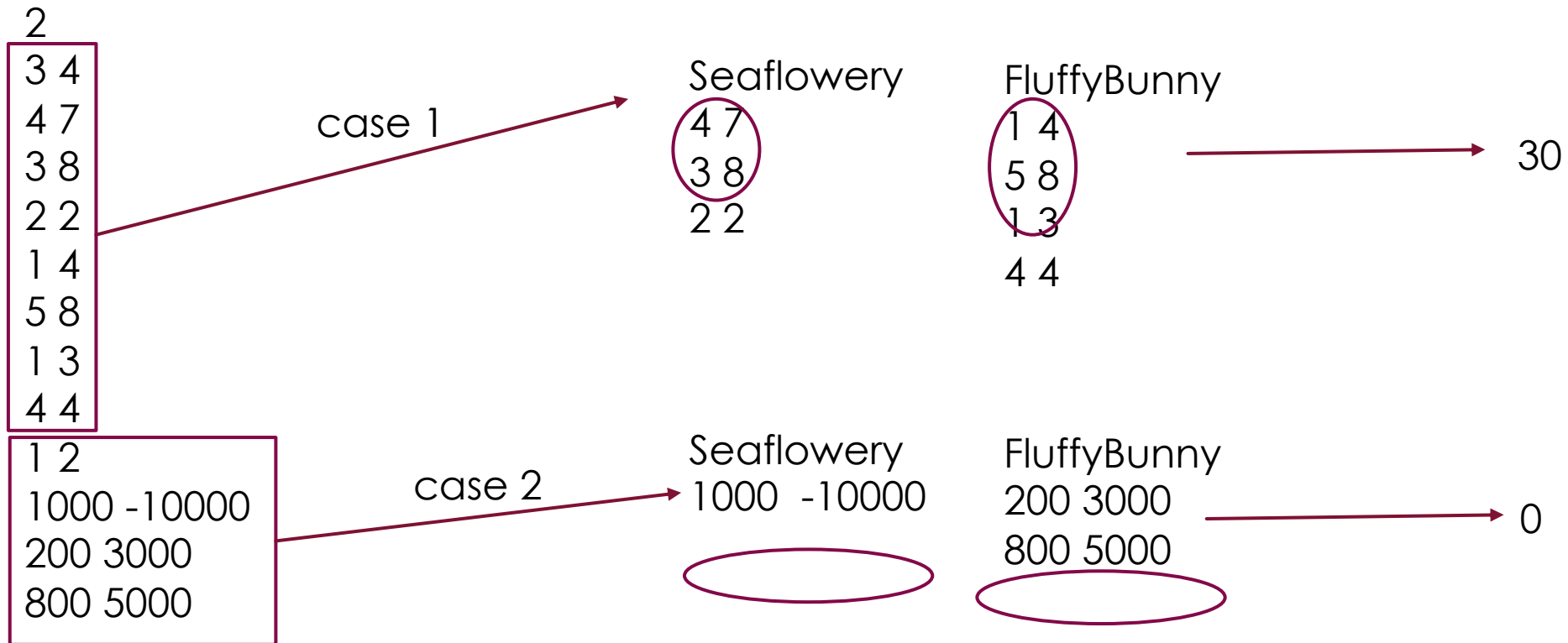
Lab12 Questions

YAO ZHAO

Lab12.A: Flowwww

- ▶ Seaflowery and FluffyBunny are rewriting the lyrics in a song. Seaflowery has prepared N words while FluffyBunny has prepared M words which they can choose from. Each word has a length l_i and elegance e_i . The two girls want the total length of their words to be the same. Under such circumstance, they would like the sum of elegance of their chosen words to be maximized. Please tell them the maximum sum of elegance.
- ▶ Note that either girl can choose no word at all.

Sample Input



Sample Output

30
0

Lab12.B: Happy Bussing

- ▶ Seems like some happy-bussing software has been updated so that the checkpoints are now randomly generated (a checkpoint is a point in 3D space).
- ▶ However, **little Z** found out that the generator is not that random. It actually picks checkpoints from a huge fixed point lists, so that it appears to be randomly generated.
- ▶ As we all know, one has to get to 2 checkpoints to make the record valid. **little Z** has a hacking program that controls the generation of checkpoints. He wants to know the closest pair of checkpoints so that he can finish bussing as fast as possible. Note that the distance is defined as the **Euclid Distance**.
- ▶ **little Z** finds that the point list is greater than usually. So he decides to use some random algorithm to solve this problem.

Sample Input

```
7
0 6 2
14 5 5
13 0 13
0 16 4
7 16 3
13 11 4
13 17 15
```

Getting the minimum distance among the
given set of points

Note: use some random algorithm

Sample Output

38