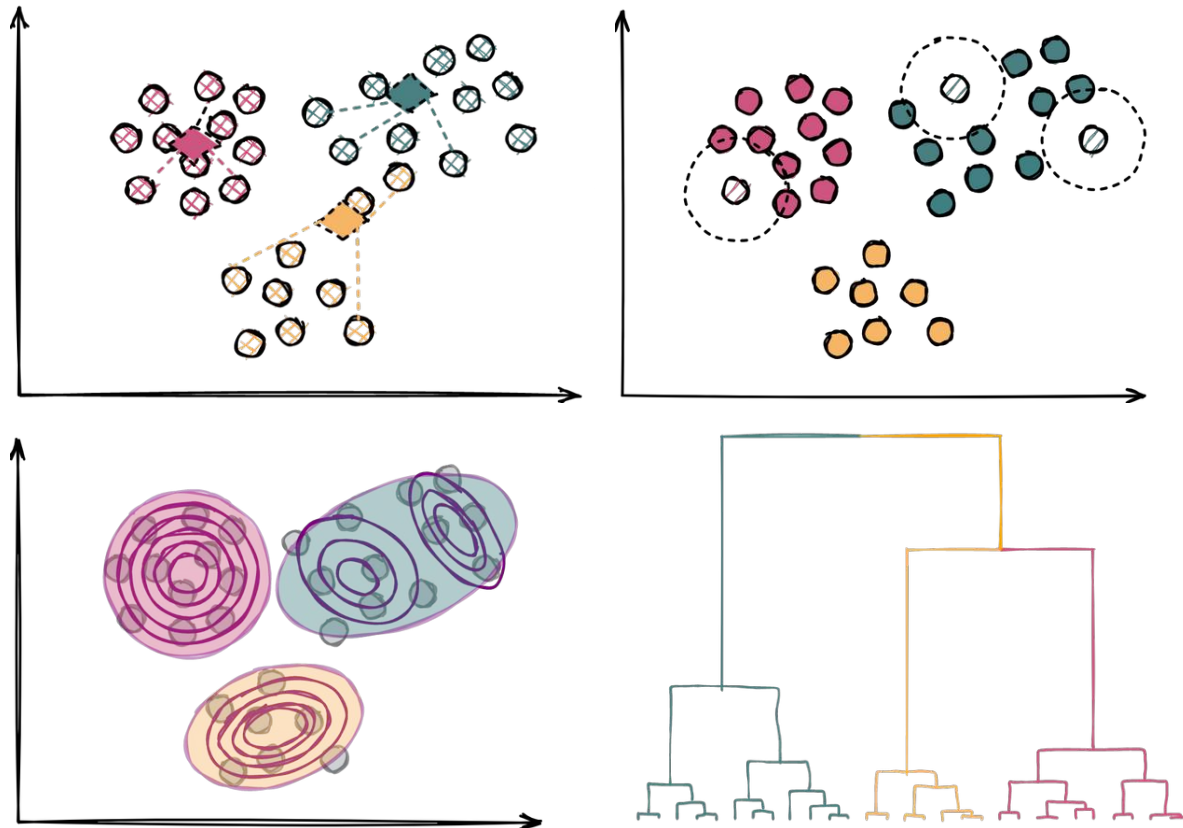


# Clustering

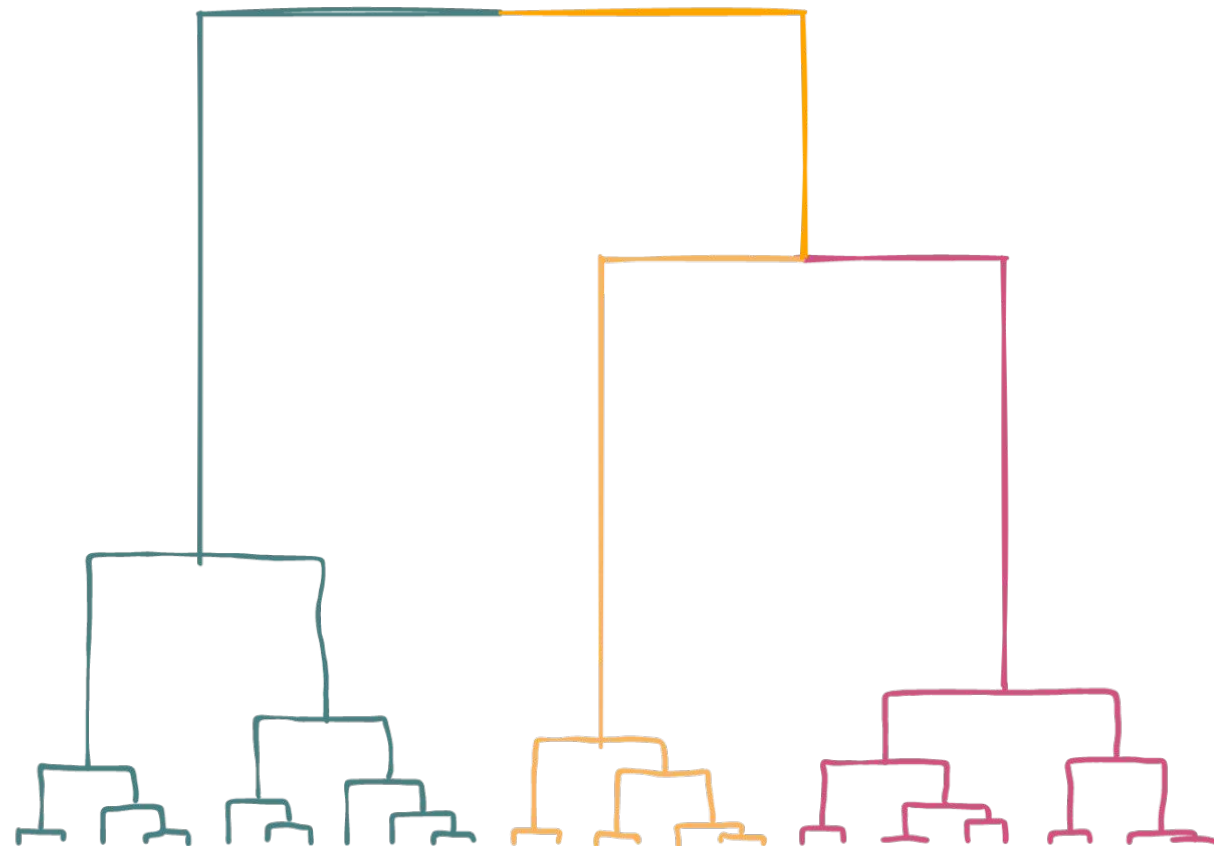
## Hierarchical

Week 20



Middlesex University Dubai; CST4050 Fall21;  
Instructor: Dr. Ivan Reznikov

# Distance-based clustering



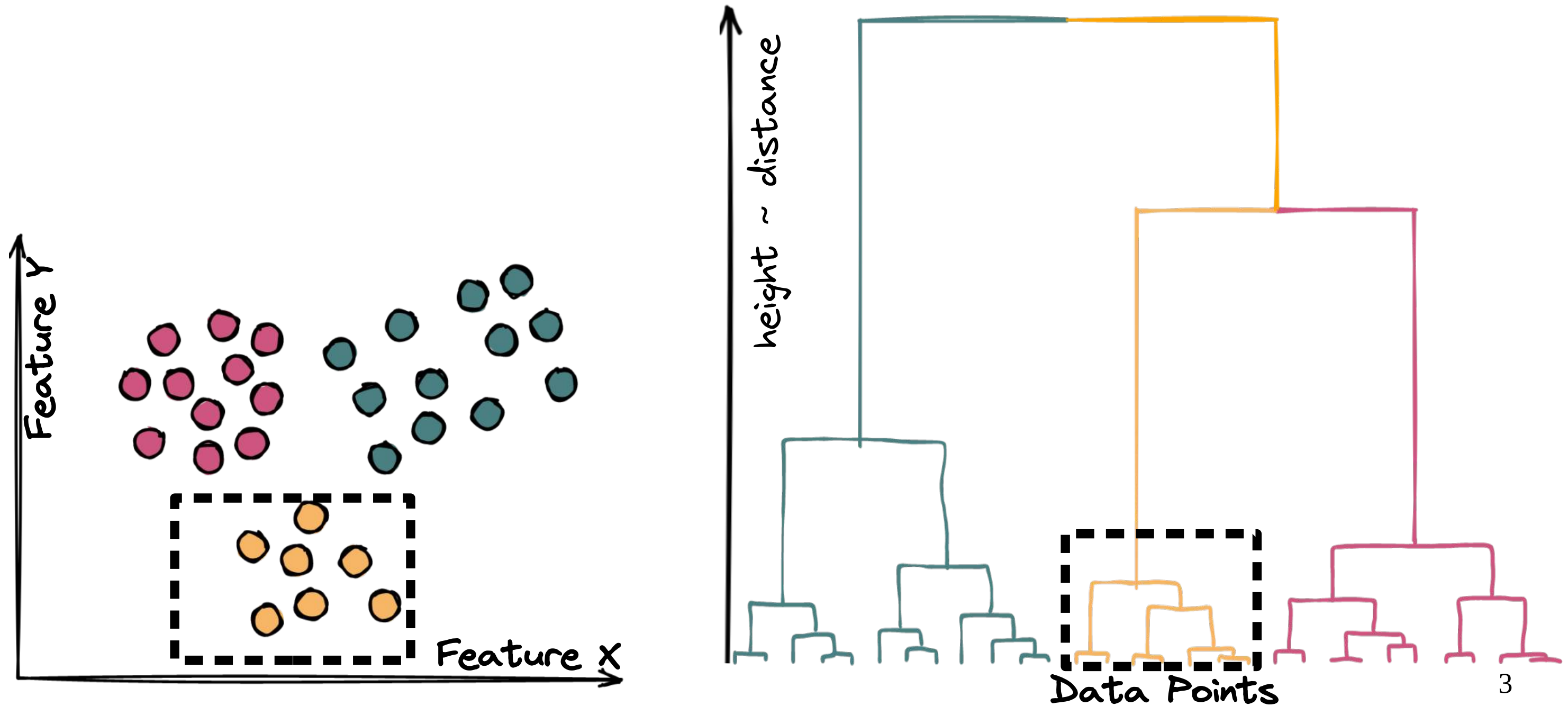
## Main idea:

Clusters are developed based on distance between objects, as closer means more related.

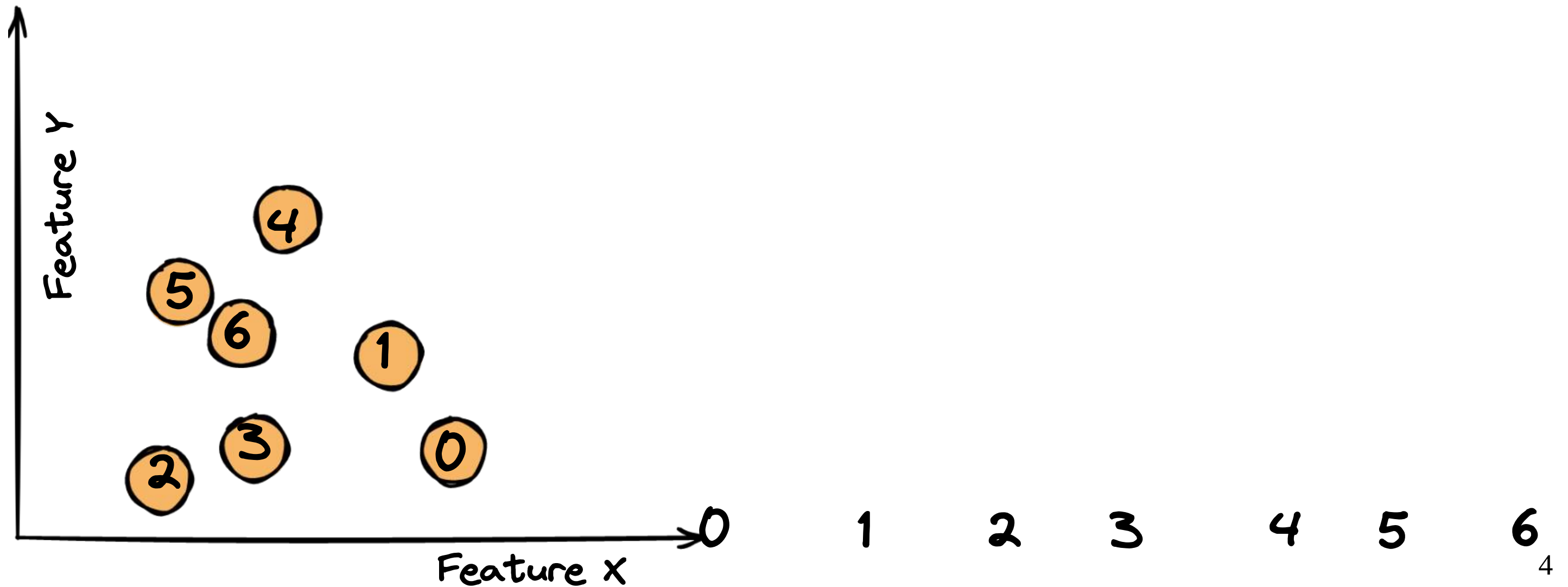
## Most used method:

AHC – Agglomerative hierarchical clustering

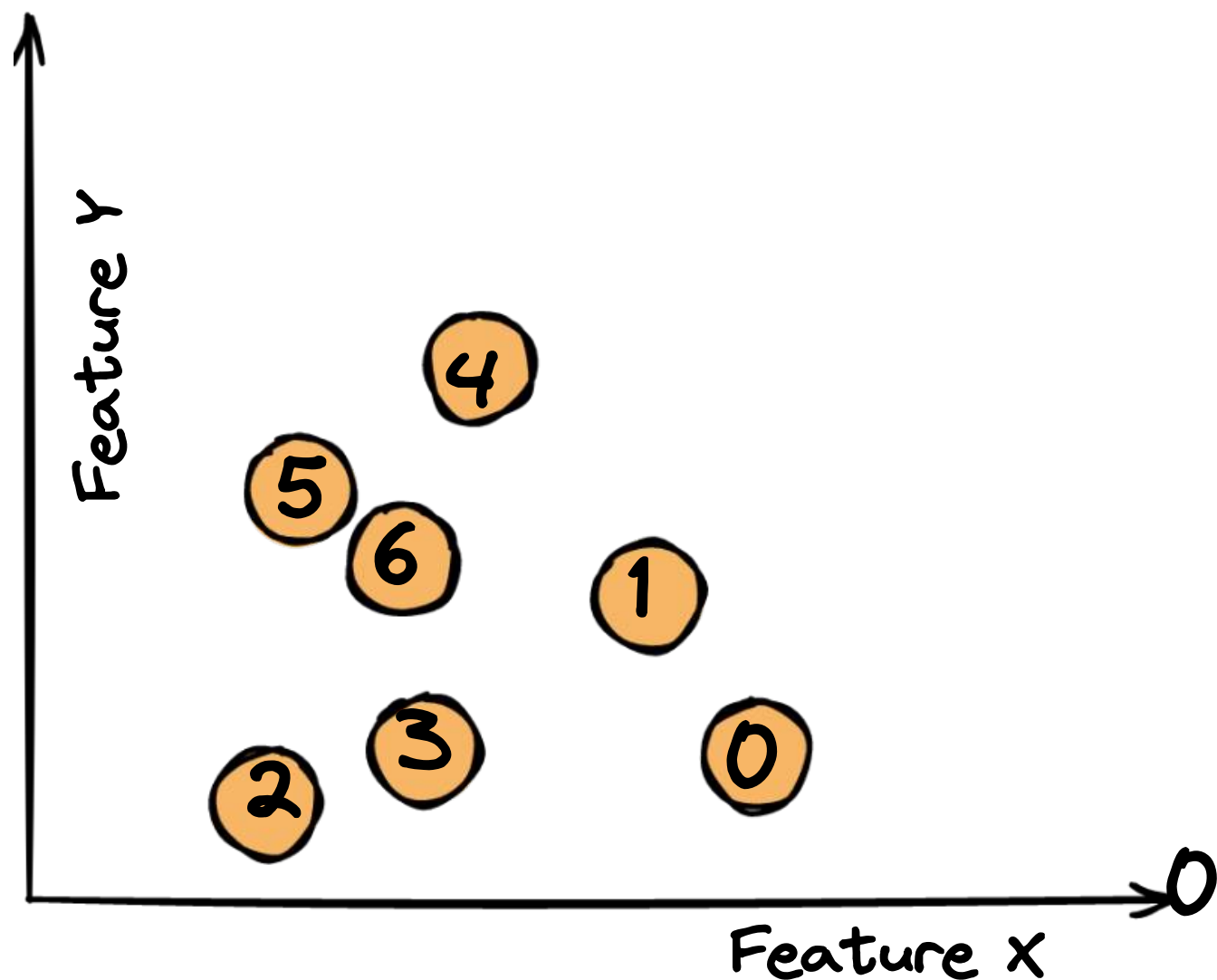
# Distance-based clustering



# Distance-based clustering



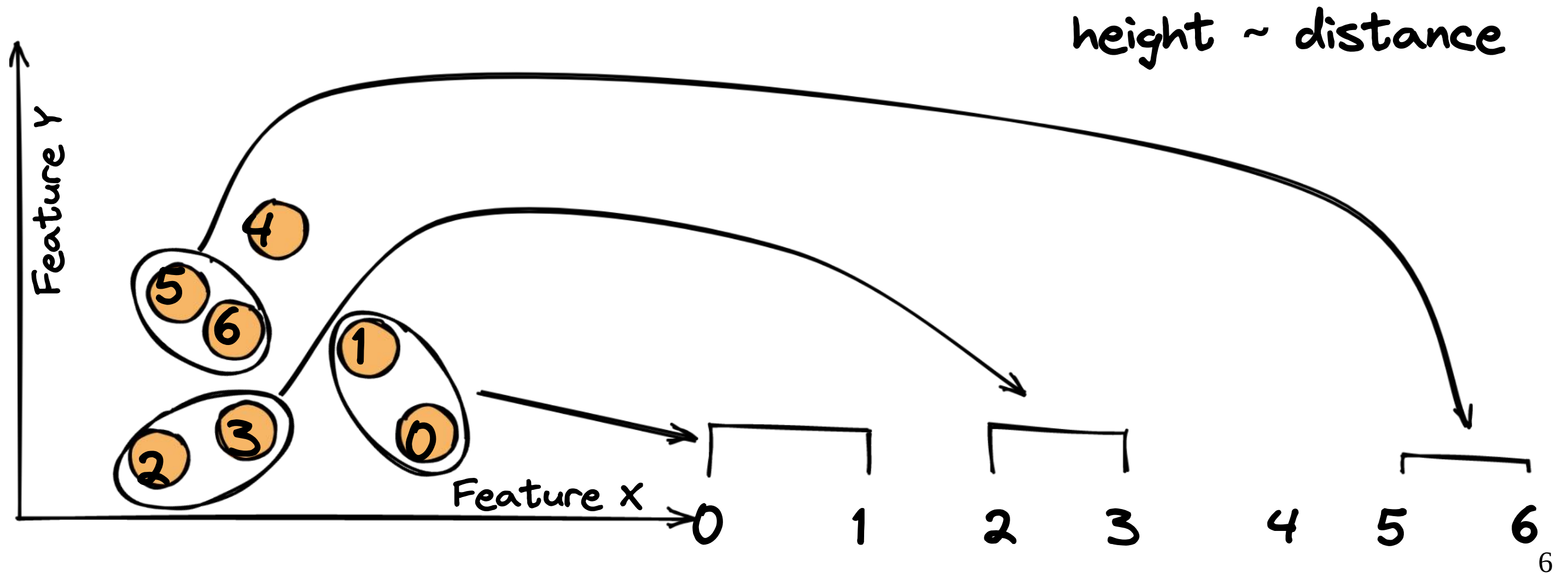
# Distance-based clustering



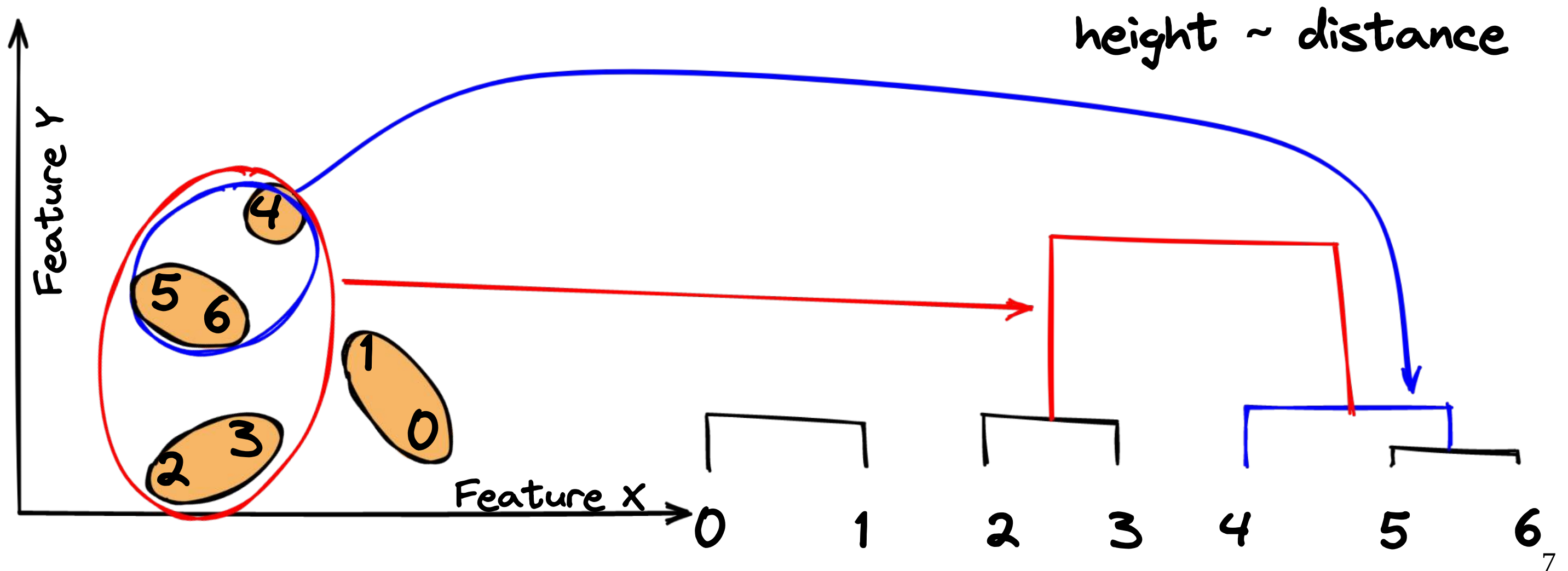
5	6	1 <sup>st</sup> closest pair
2	3	2 <sup>nd</sup> closest pair
1	0	3 <sup>rd</sup> closest pair
4	6	4 <sup>th</sup> closest pair

1 2 3 4 5 6

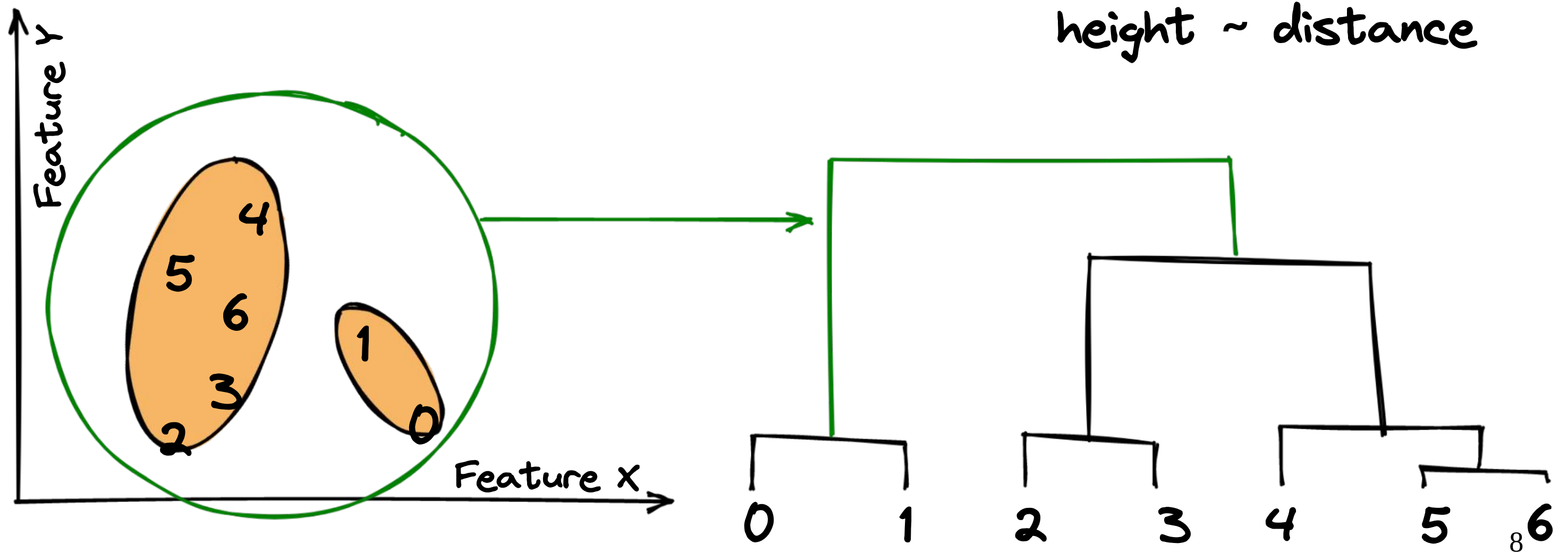
# Distance-based clustering



# Distance-based clustering



# Distance-based clustering





# Distance-based clustering

