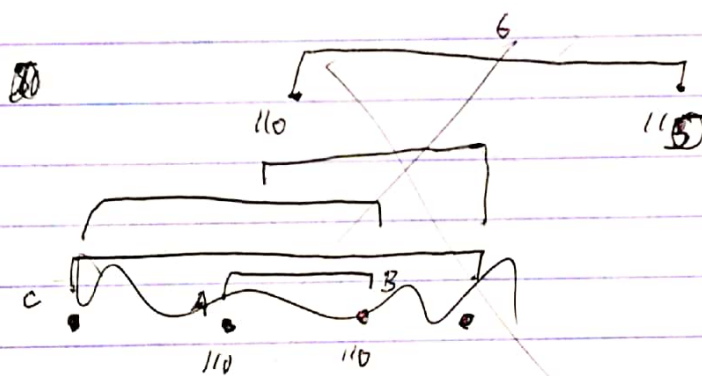
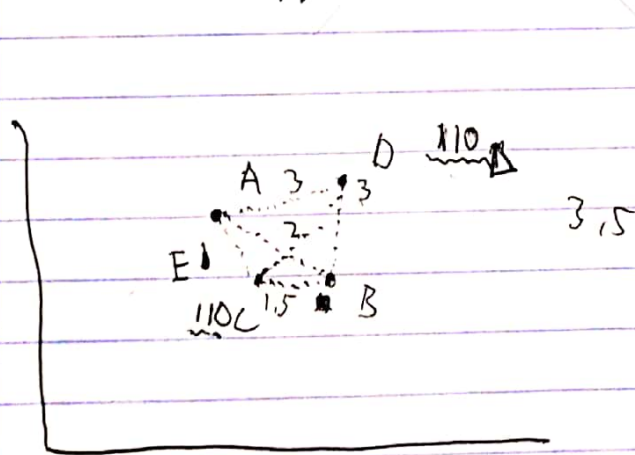


- List of points
  - Each point/ID must contain elements.
  - ∴ Class or struct object with
    - List of objects
    - Insert element, update from every element
- list of distance
- could be ↓
- So Inefficient!



← This linear is



	A	
A	3	
B	3	
C	3.5	
E		

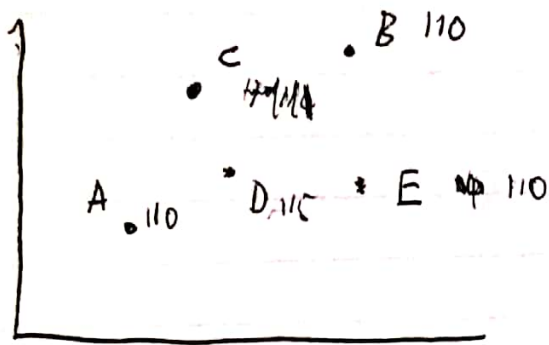
Reminds me of Travelling salesman

Not really but NP-hard

LEDO

# Graph Theory

median distance



Distance 'Calc'

weighted Complete graph (undirected)

	A	110
B	4,5	110
C	2	112
D	2	112
E	4	111

	B	110
A	4,5	110
C	2	112
D	2,5	112
E	3	111

	C	113
A	2	110
B	2	110
D	1	112
E	3	111

	D	
A	2	
B	2,5	
C	1	
E	3,5	

why

112

	E	
A	4	
B	3	
C	3	
D	0,5	

A-B	4,5	
A-C	2	
A-D	2	
A-E	4	
B-C	2	
B-D	2,5	
B-E	3	
C-D	1	
C-E	3	
D-E	0,5	

Find median dist

115 110  
115 114

110 115

110 115

5 vertex  
10 Edges

6-16

7-23

Examp 1. Insert all distances into  
a list (array) / no vector

dist struct dist { left\*node  
right\*node  
distance

C++ vector

make it point to node

Node { position  
ID  
Frequency

← ~~dist~~ vect of distances

A-B  
~~A-C~~  
A-D  
B-C

B-D ... etc

assign values based on normalised  
data - find normalise

data  
range } 0

check formula 1  
0



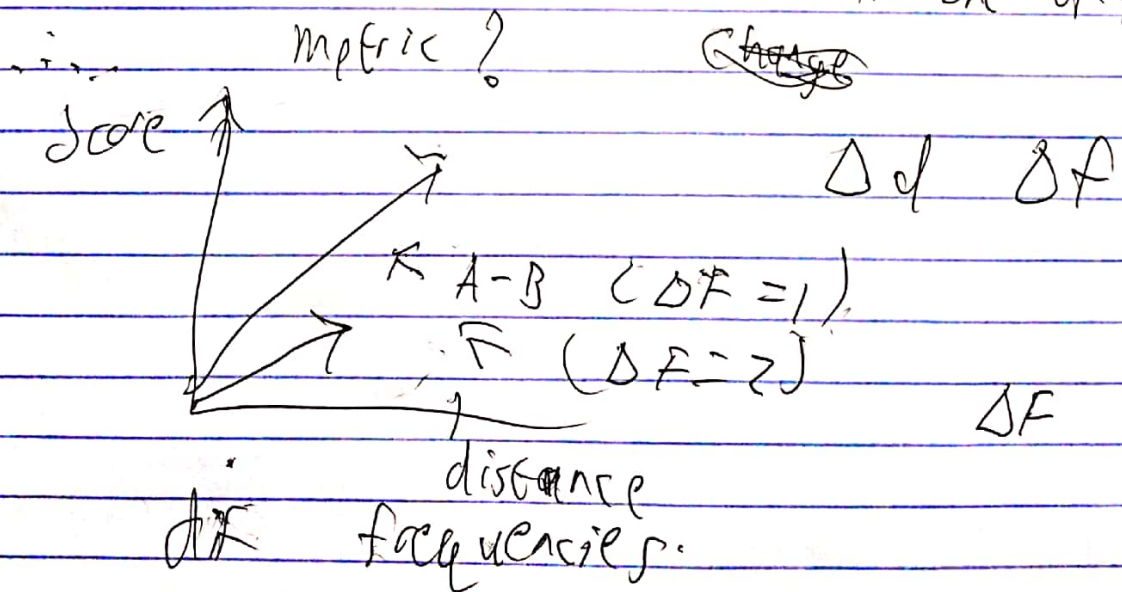
Normalise from 0:5 (110-115)

Set frequency based on distance from node vector list (A-B, A-C) etc.

Arrange list from smallest distance to largest then algorithm

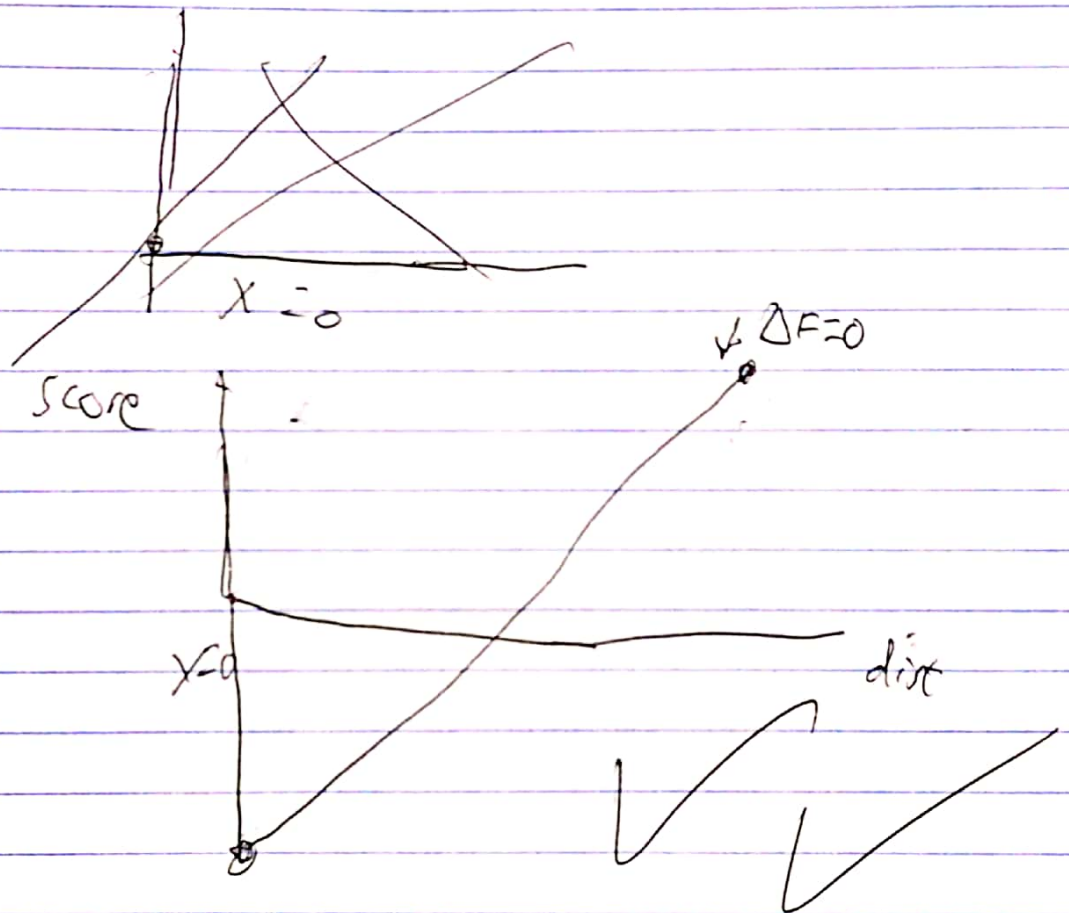
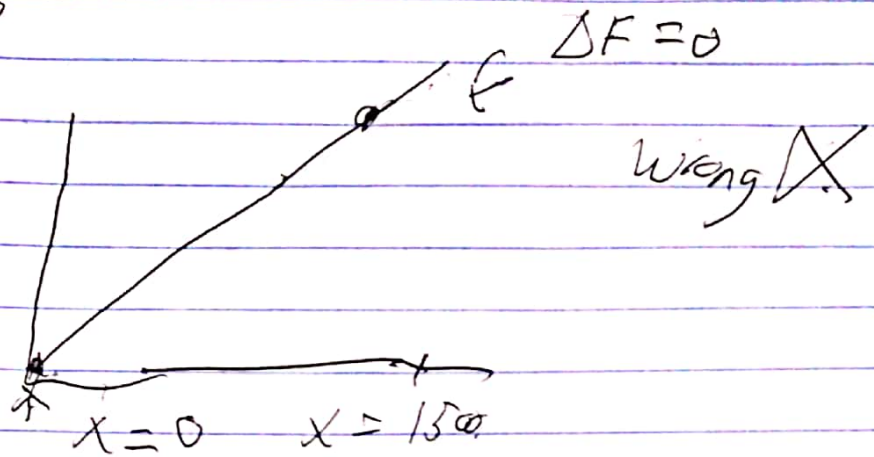
Solution done by  
graph? verify?  
visually?  $\rightarrow$  x,y  $\rightarrow$  Adj  
scan make random frequency  
and assign scoring metric ✓

Random frequency done  $\Rightarrow$  optimal frequency in one of them

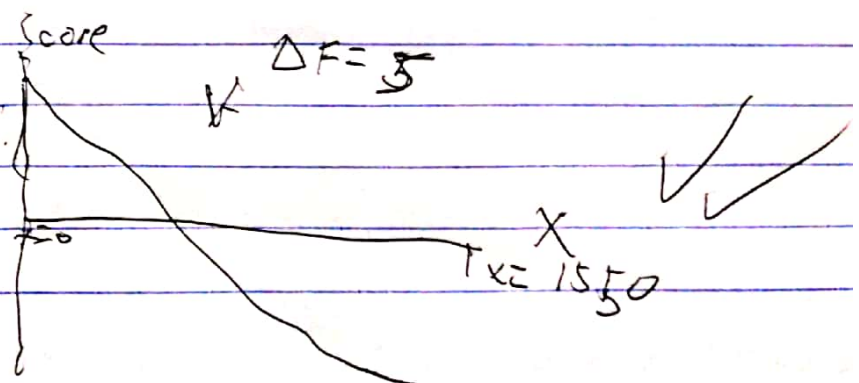


Mr

?



This works / model it





No time for more!

Notes - optimal freq based on MY  
Scoring method doesn't mean  
optimal!

• If (Time  $\rightarrow 0$ ) {

Could have done greedy  
algorithm;  
Could have tried clustering  
(K-means) ; }

~~End~~

If my method is bad then  
random freq is a solution  
based on scoring method?  
since scoring method is my method

solution  $\hat{z}$  = random freq  
∴ very time inefficient

end