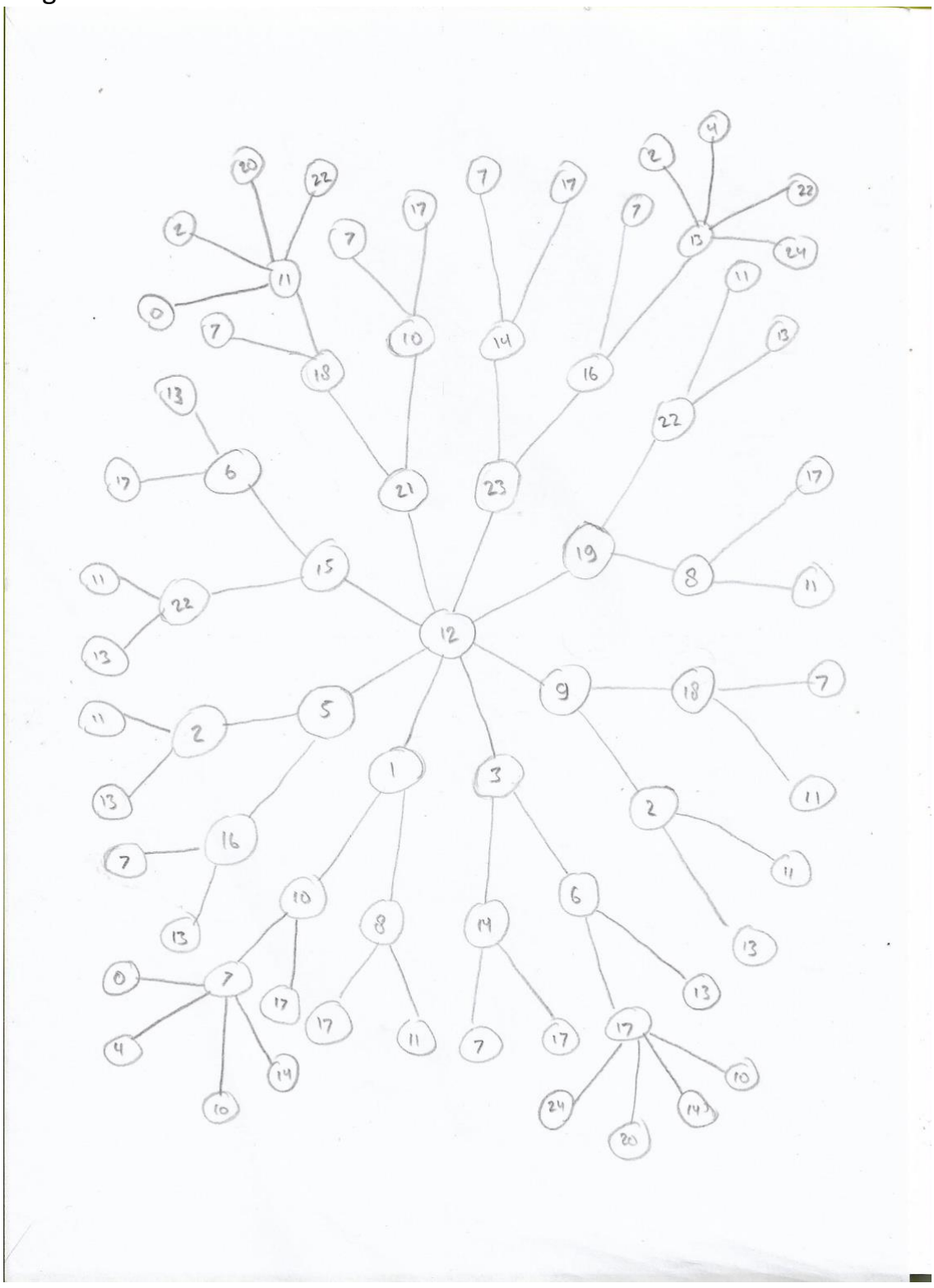
1. Obscure Binary Search Trees

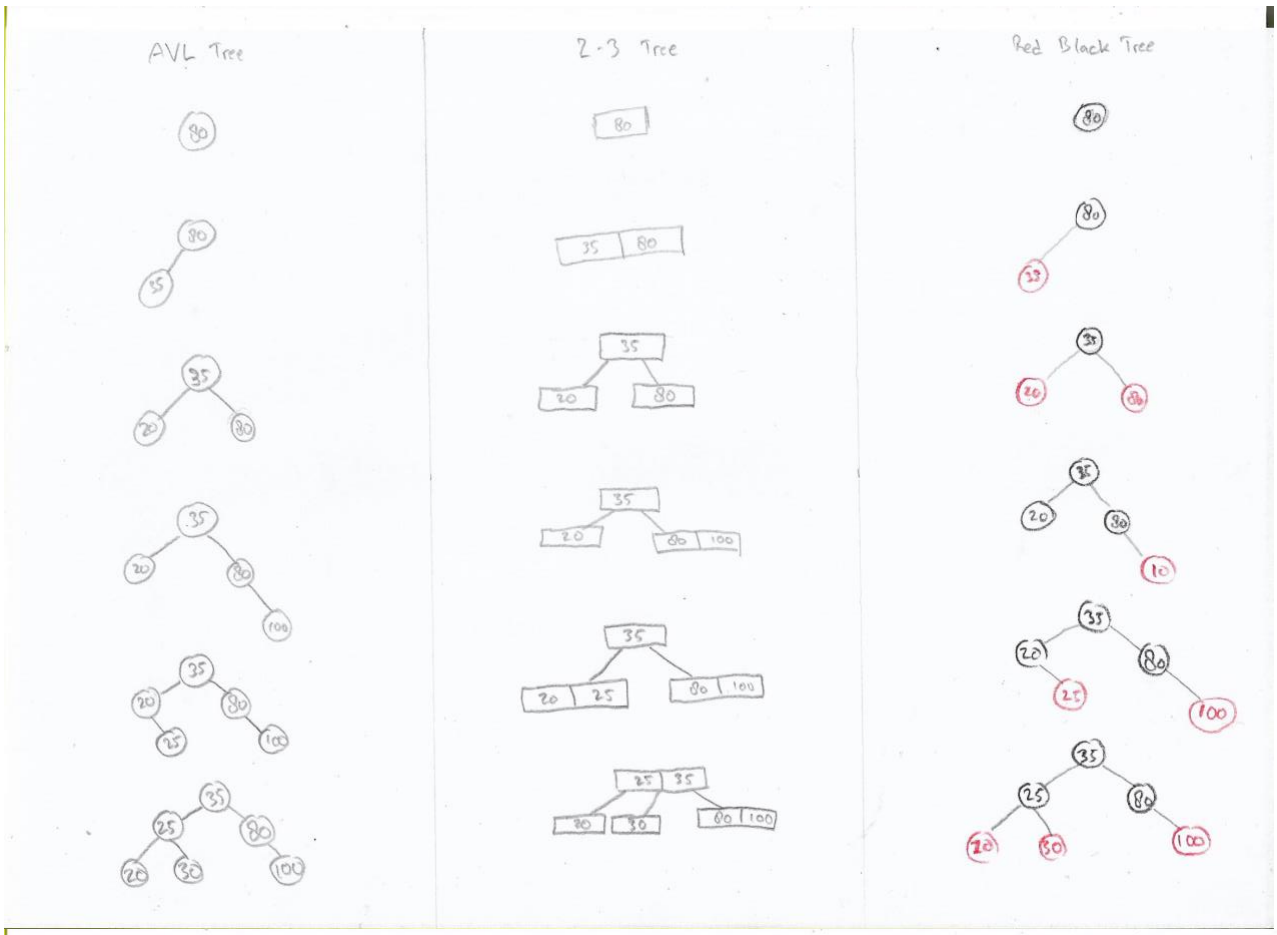
   Splay Tree adalah salah satu alternatif data struktur dari BST dan AVL Tree. Splay Tree ini sama sama binary tree seperti AVL, sama sama menggunakan sistem rotate juga seperti AVL, tetapi perbedaan Spaly Tree dan AVL adalah syarat untuk melakukan rotate pada AVL adalah jika balance factor nya lebih dari 1, sedangkan pada Splay Tree rotate akan dilakukan setiap kali ada searching dan nantinya value yang di search akan berada di paling atas atau base root dari tree. Maka dari hal itu Splay Tree ini akan mengungguli AVL jika dibutuhkan data struktur yang akan sering dilakukan search dengan value yang sama karena tentunya value yang sering di search akan naik dan lebih cepat di search. Selain itu, Splay Tree juga lebih hemat memori disbanding AVL karena tidak perlu menyimpan data balance factor.

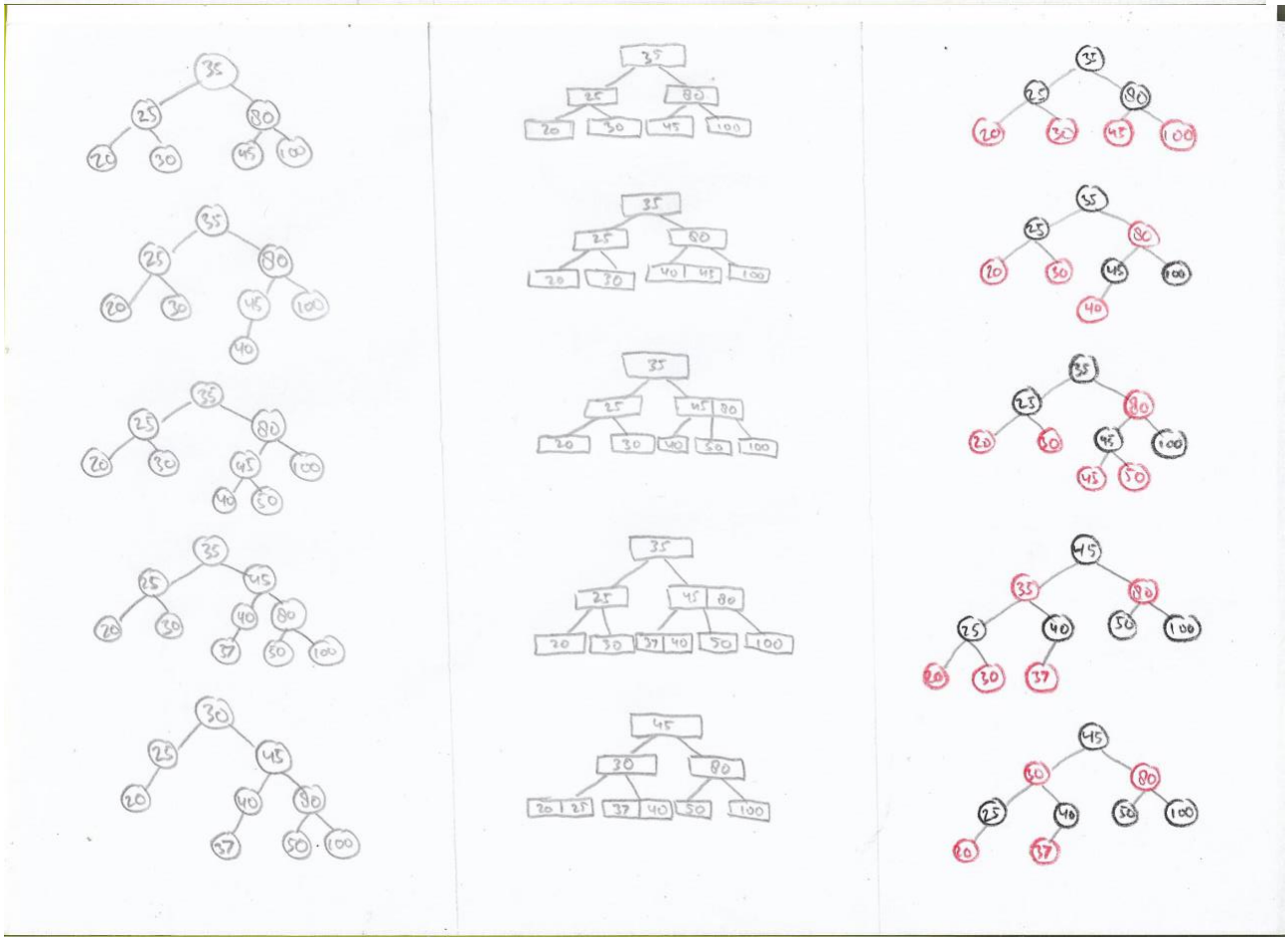
2. Knight Travials

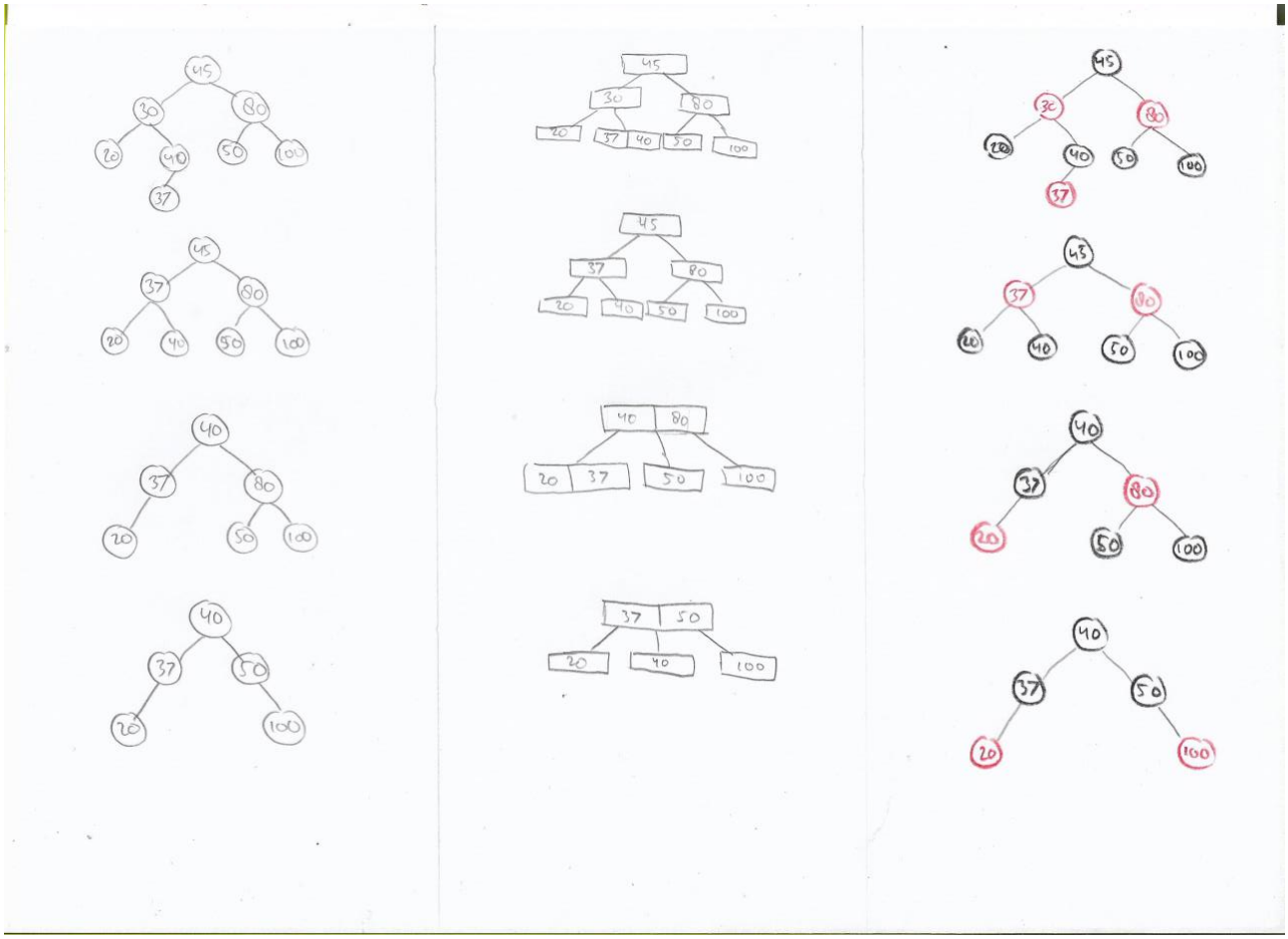


3. Tree Simulations

A.



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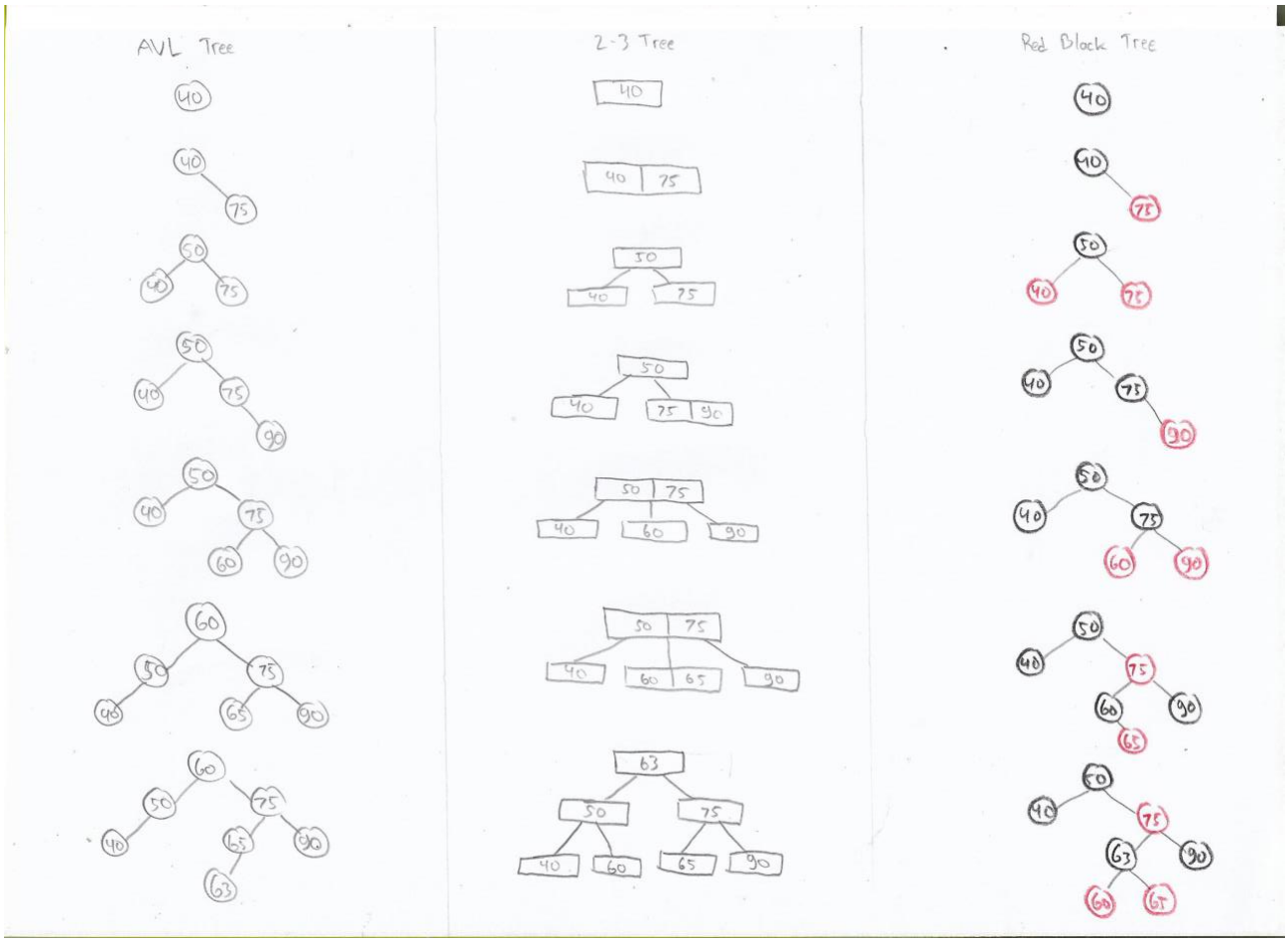
B.


AVL Tree
2-3 Tree
Red Black Tree
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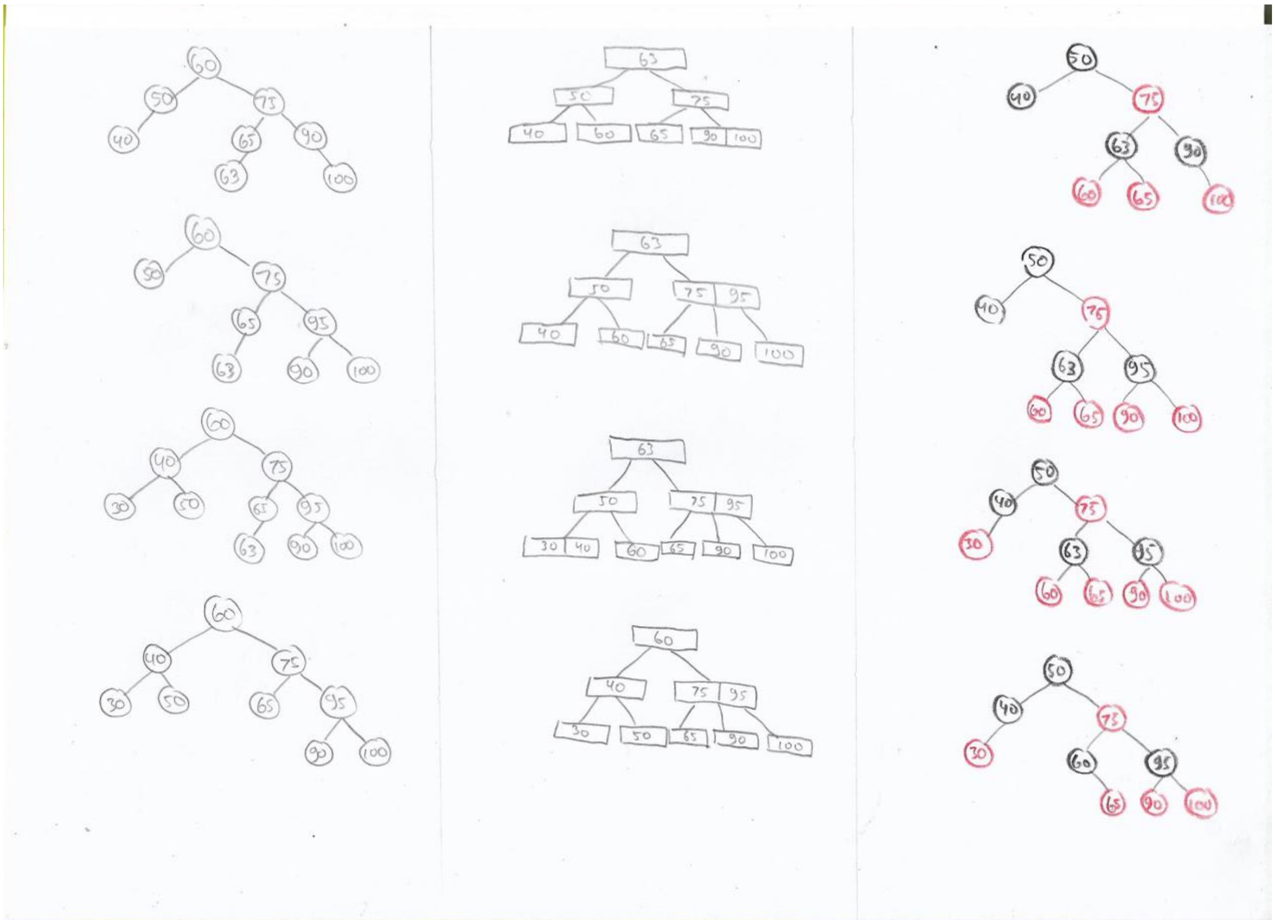
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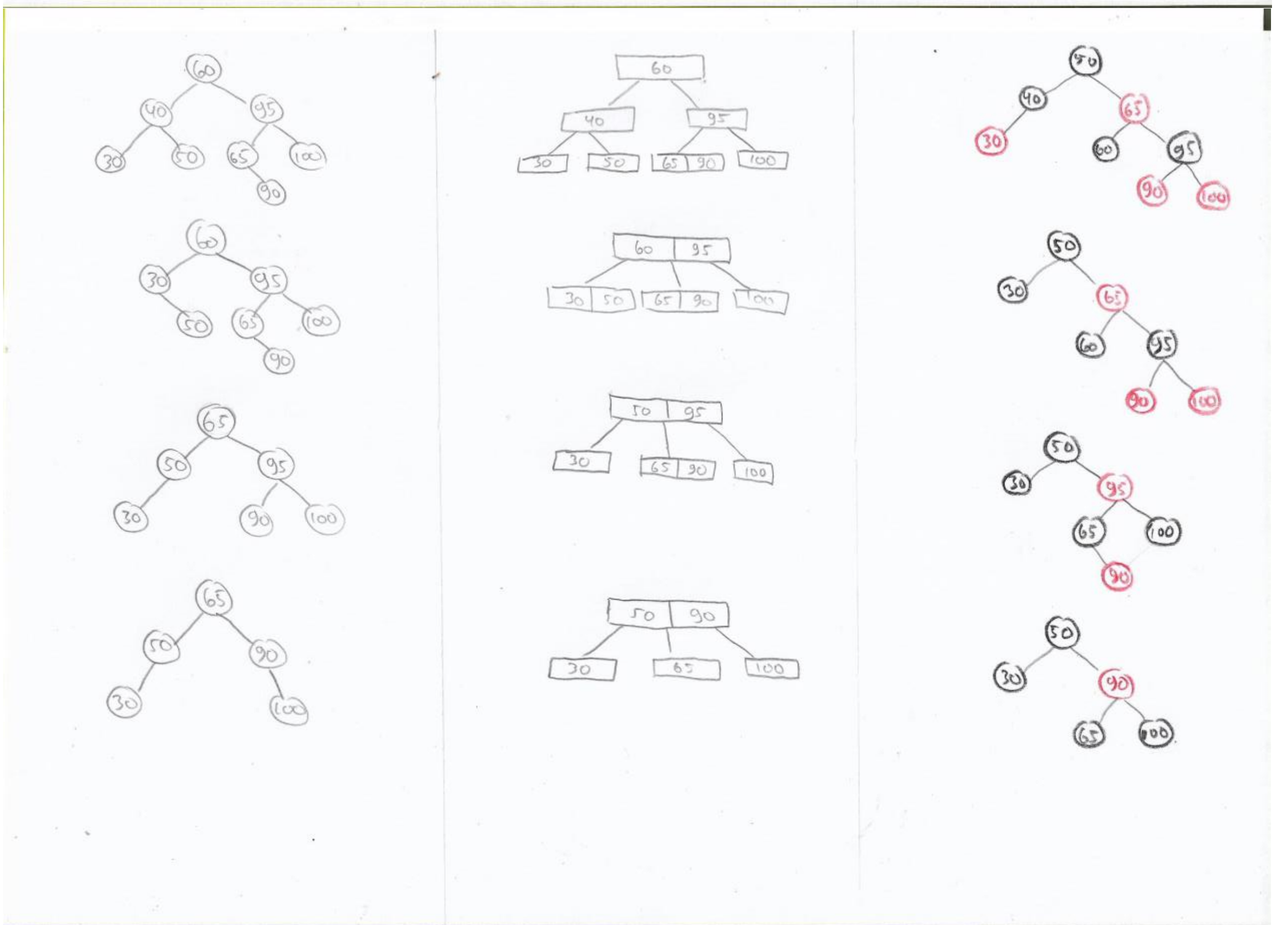
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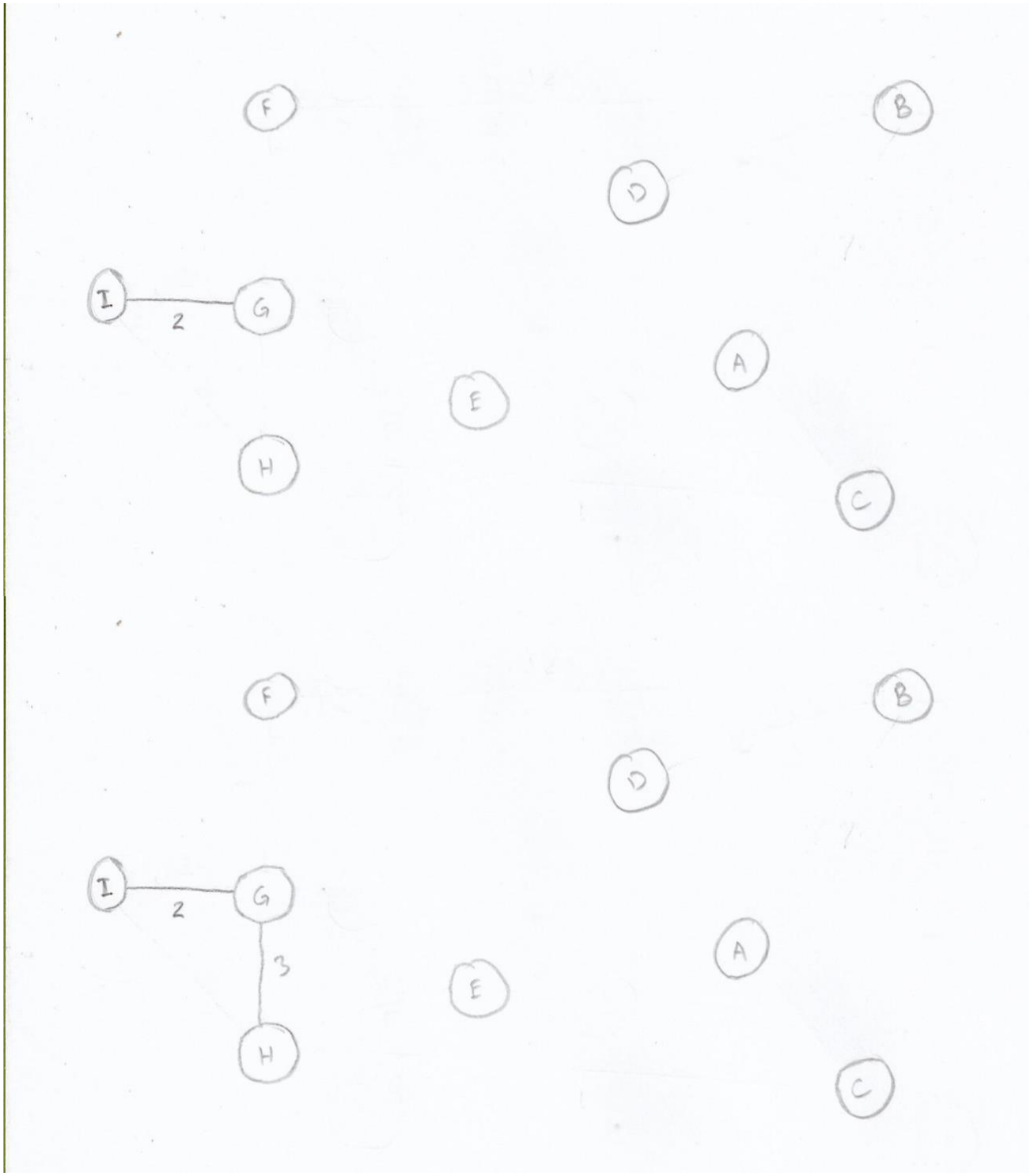
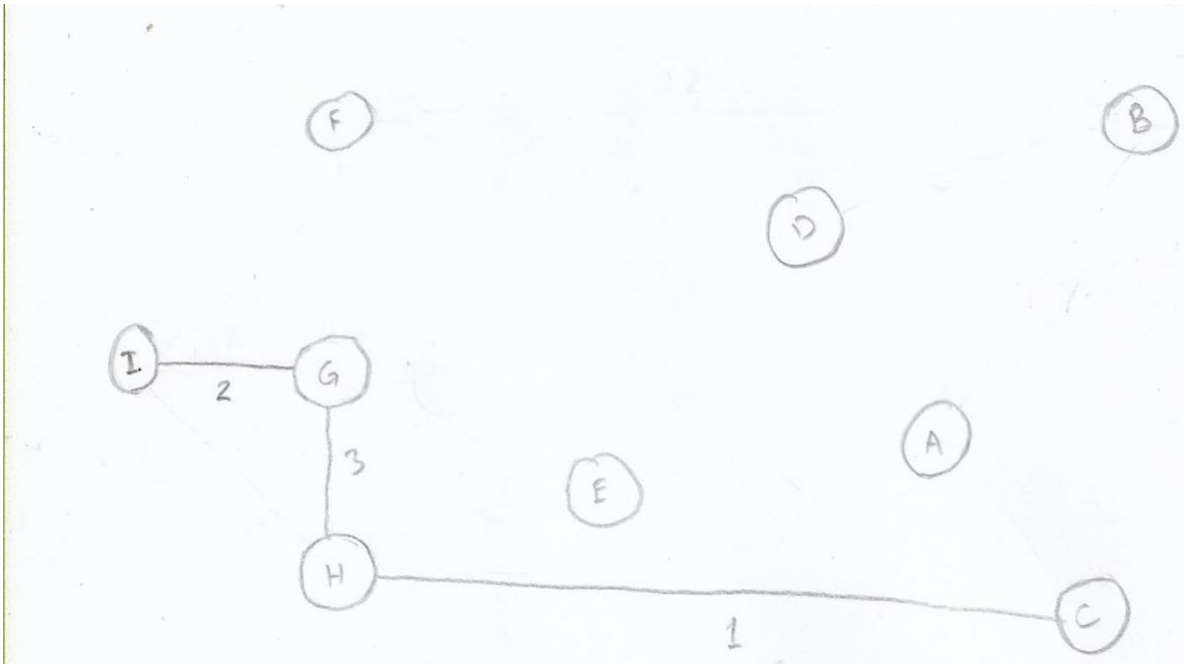
4. Disjoint Set & Graph

Prim

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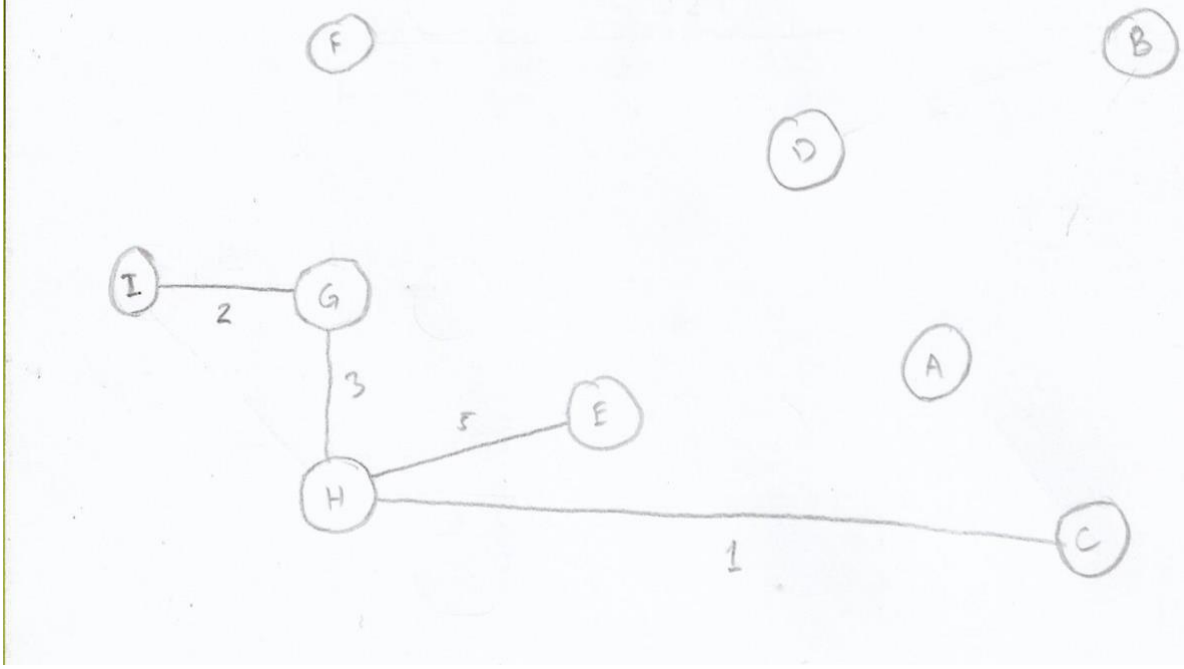
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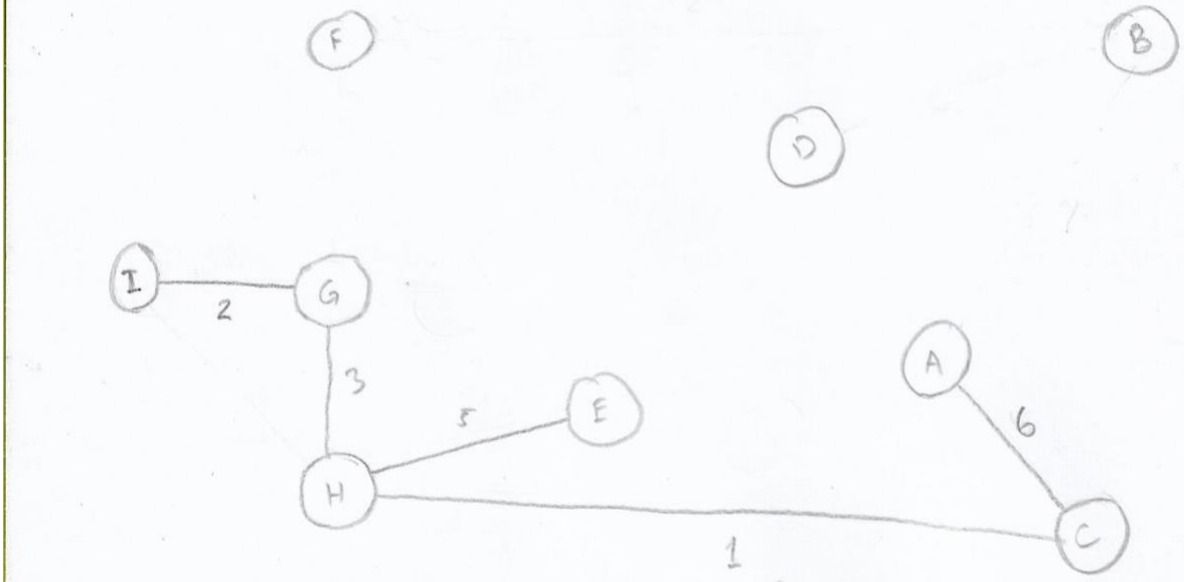
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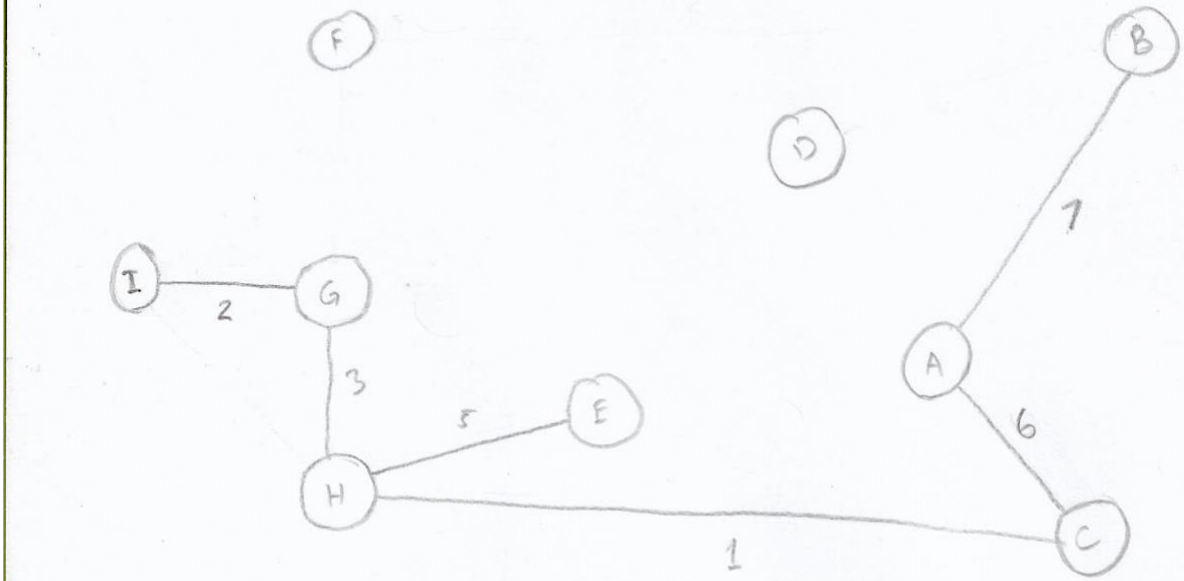
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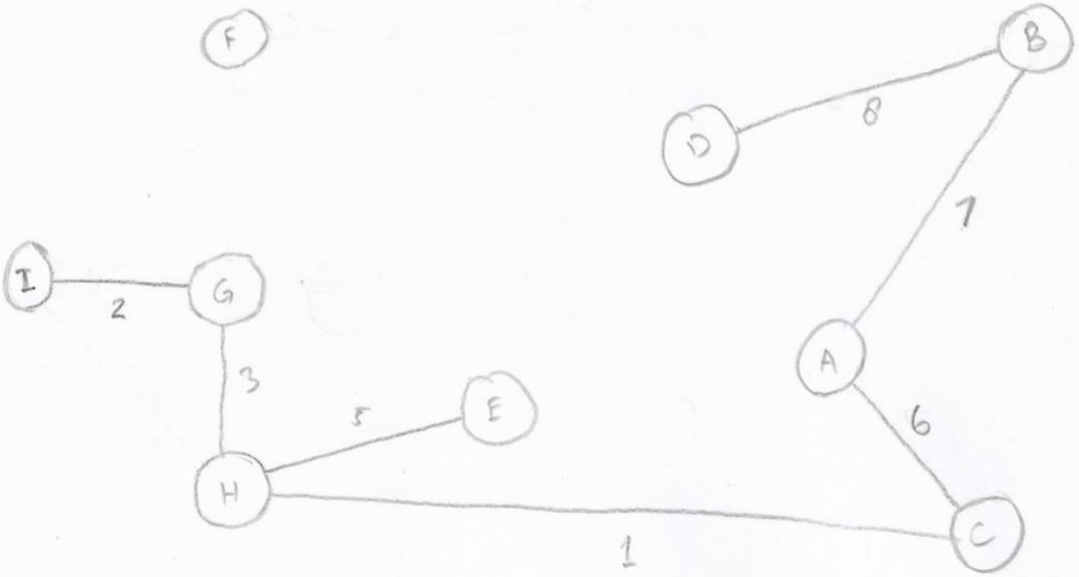
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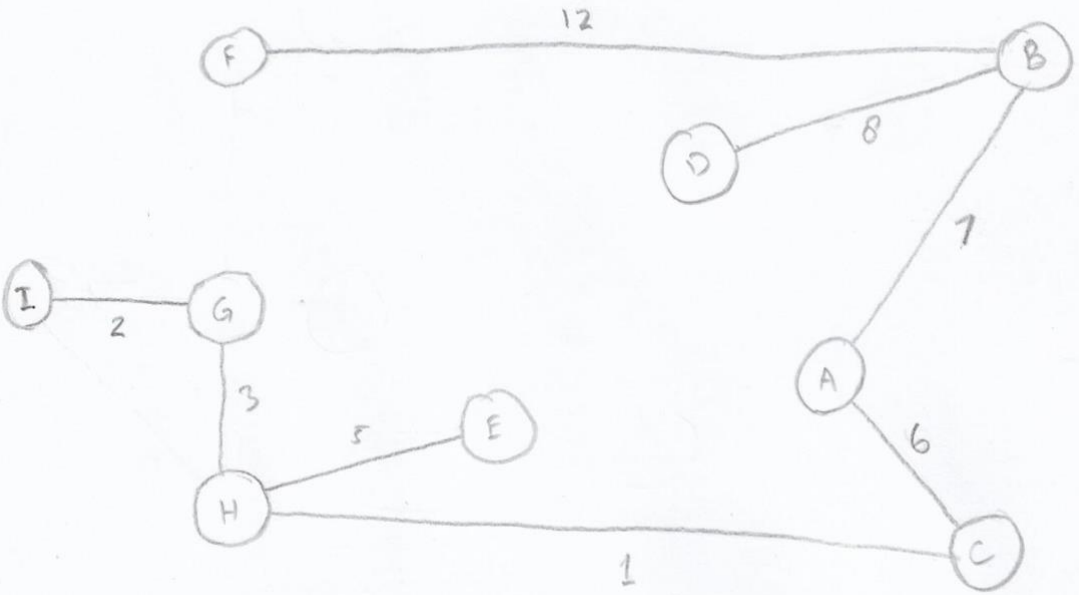
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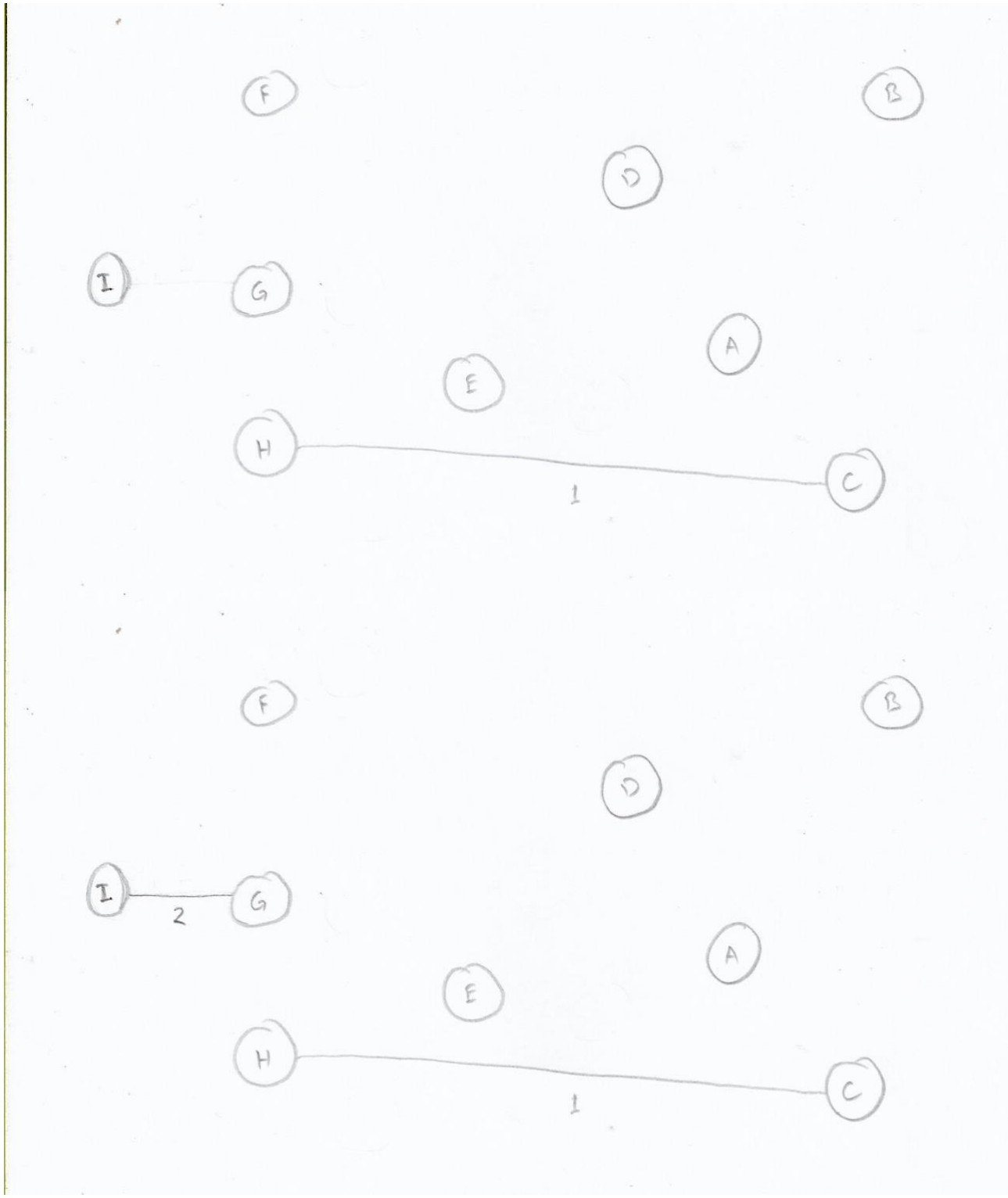
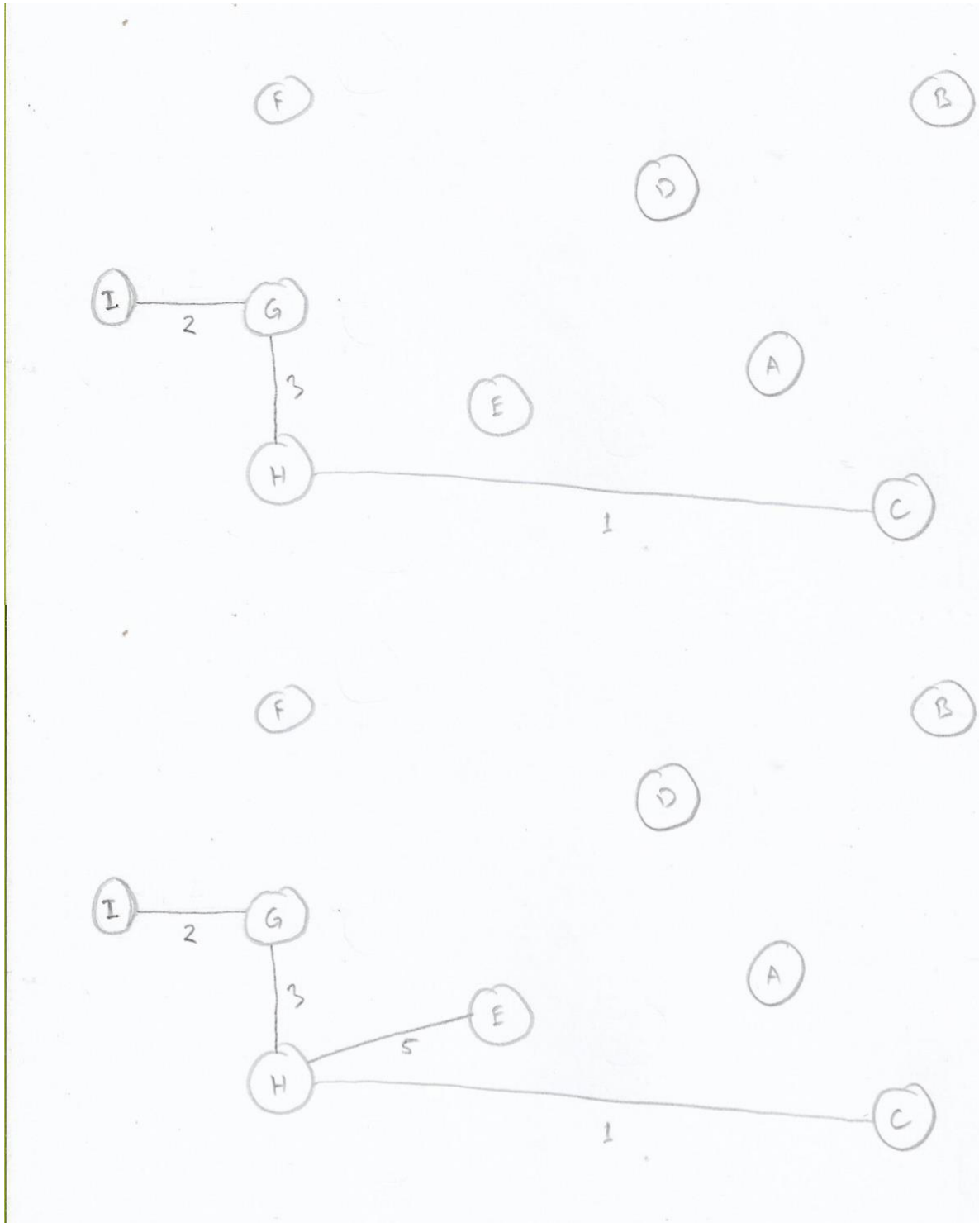
Kruskal

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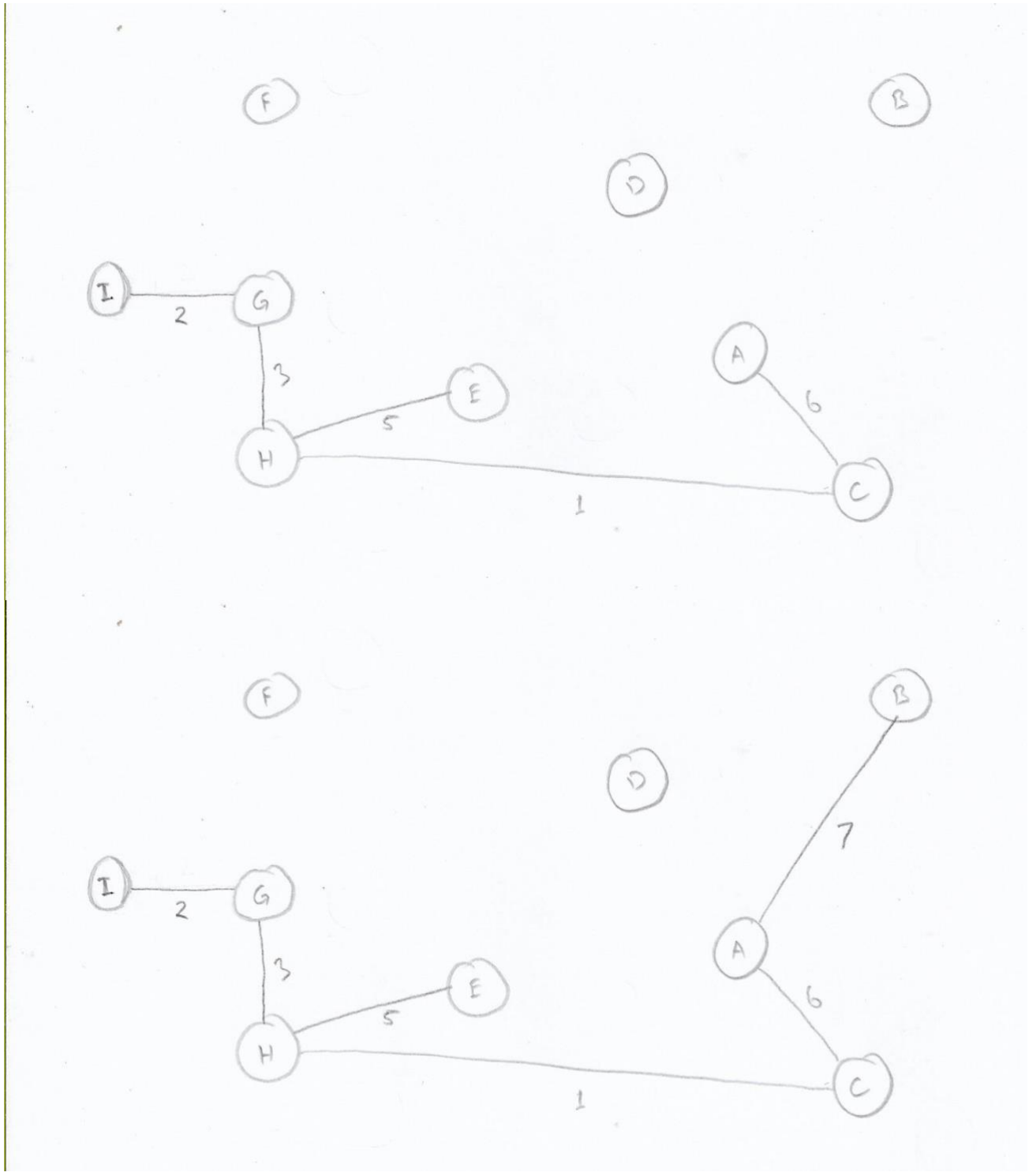
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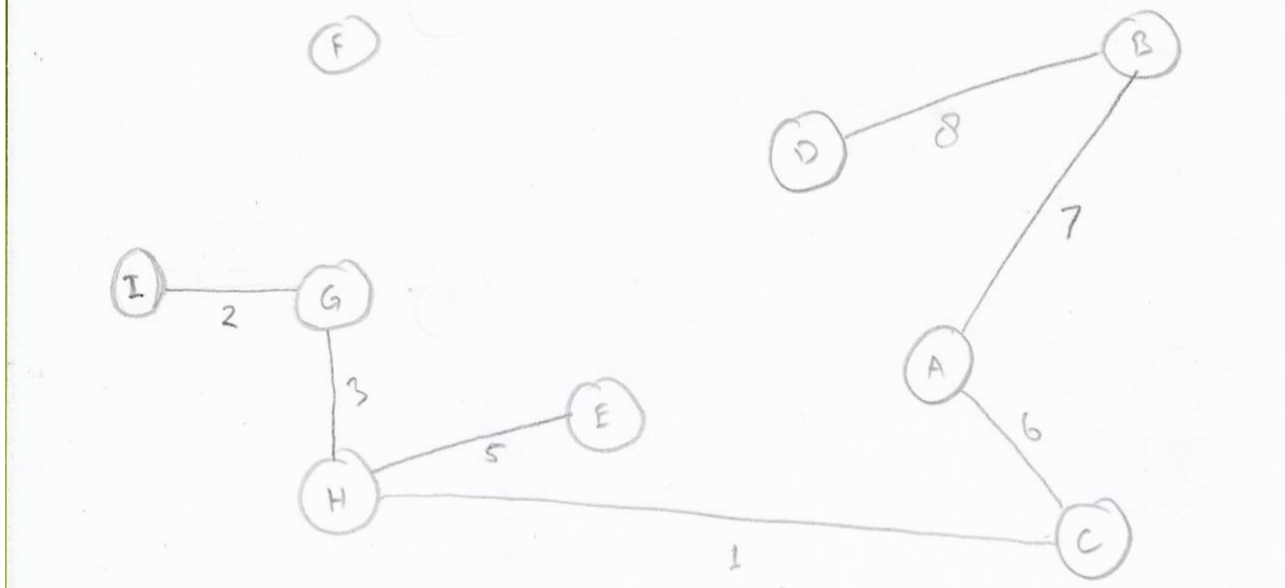
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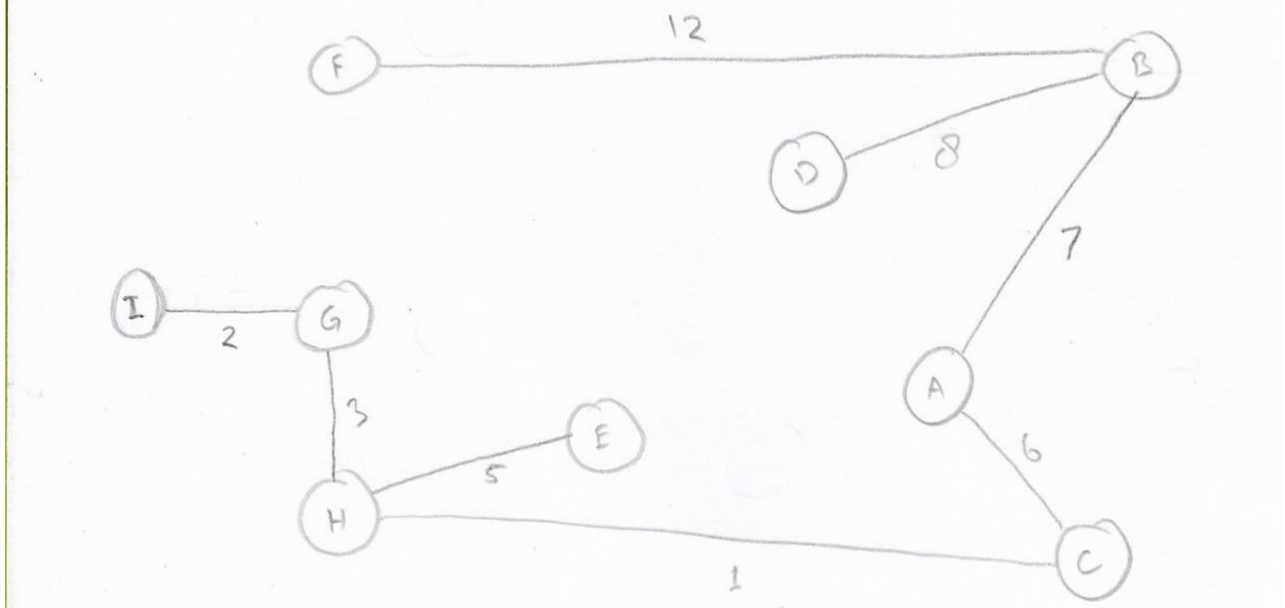
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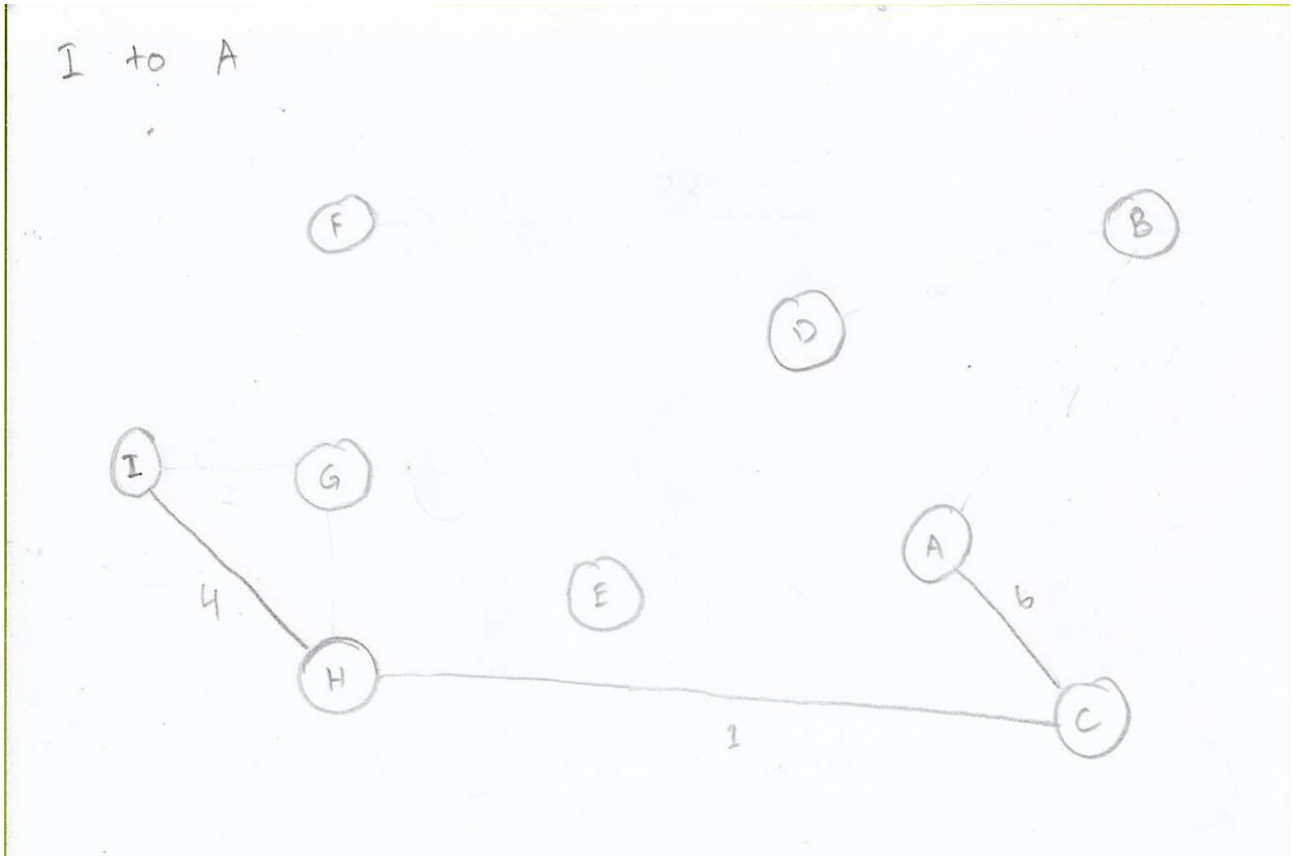
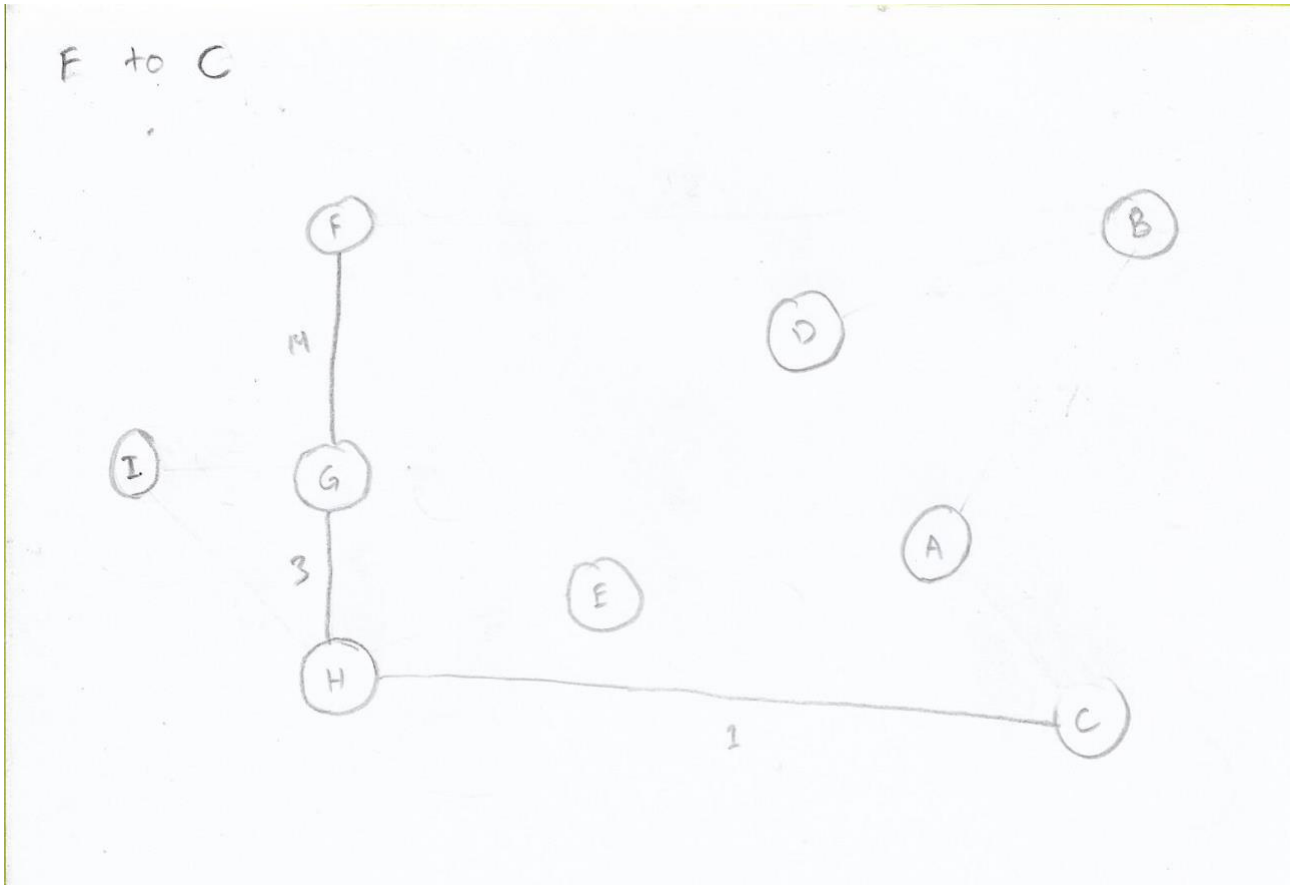
Shortest Path I to A



I -> H -> C -> A
Cost = 11

Shortest Path F to C



F -> G -> H -> C
Cost = 18