

EE30220

MECHATRONIC DESIGN PROJECT

ALGORITHMS - EXAMPLE EXERCISE 6

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BATH

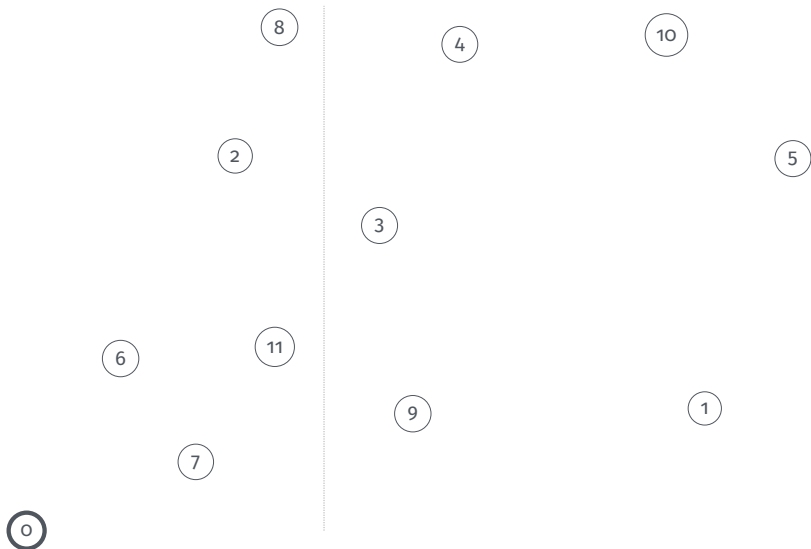
Nov. 8TH, 2019

ALGORITHM #2

EXAMPLE



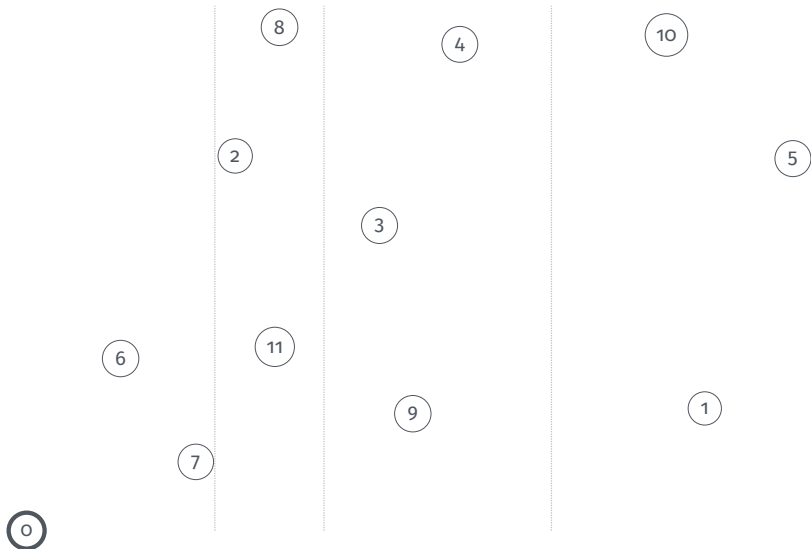
EXAMPLE



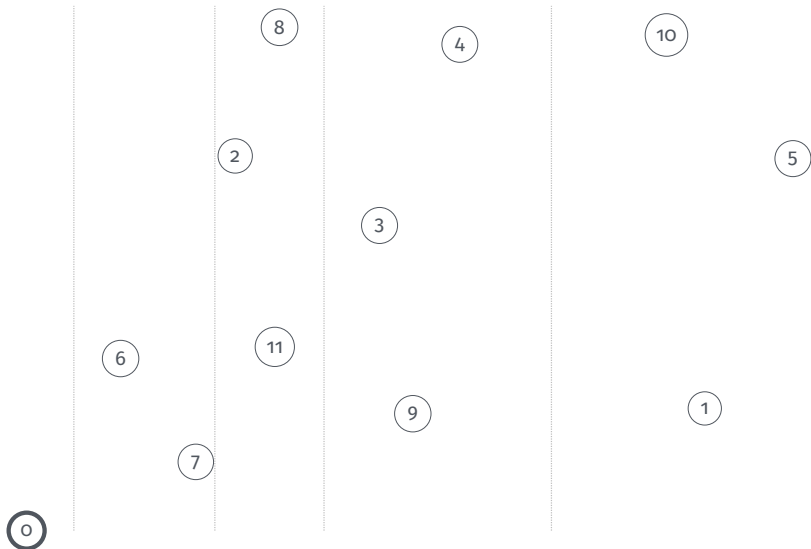
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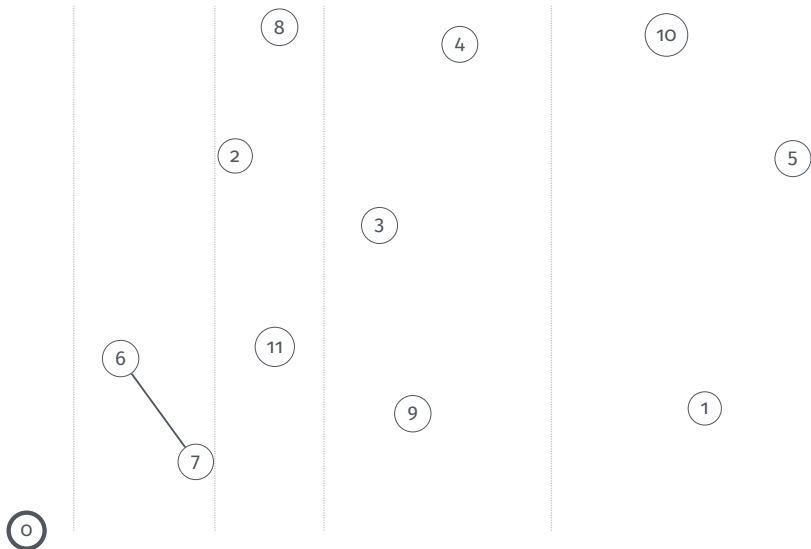
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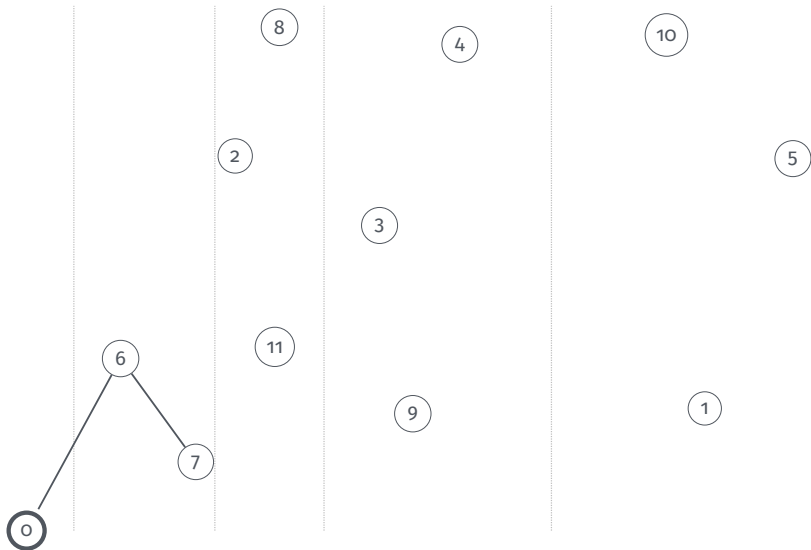
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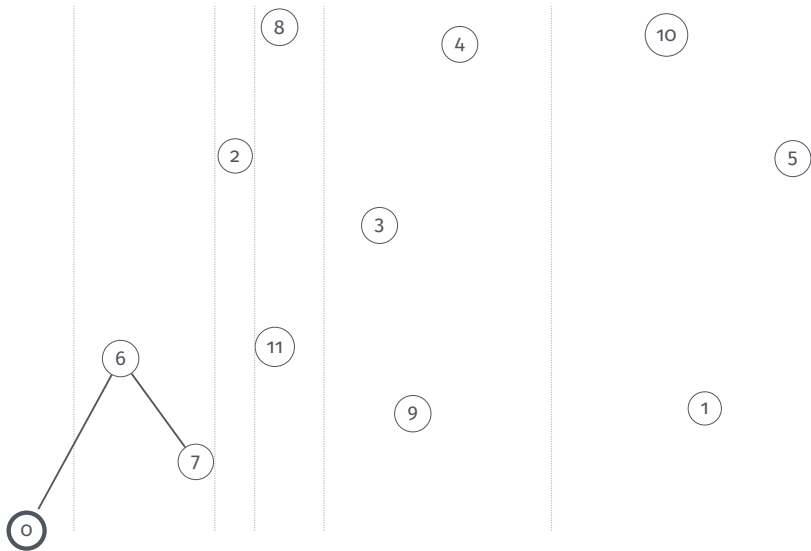
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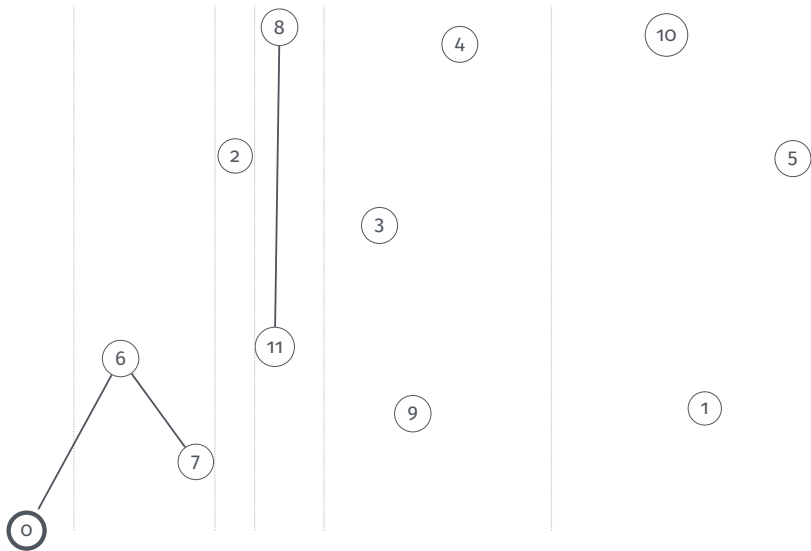
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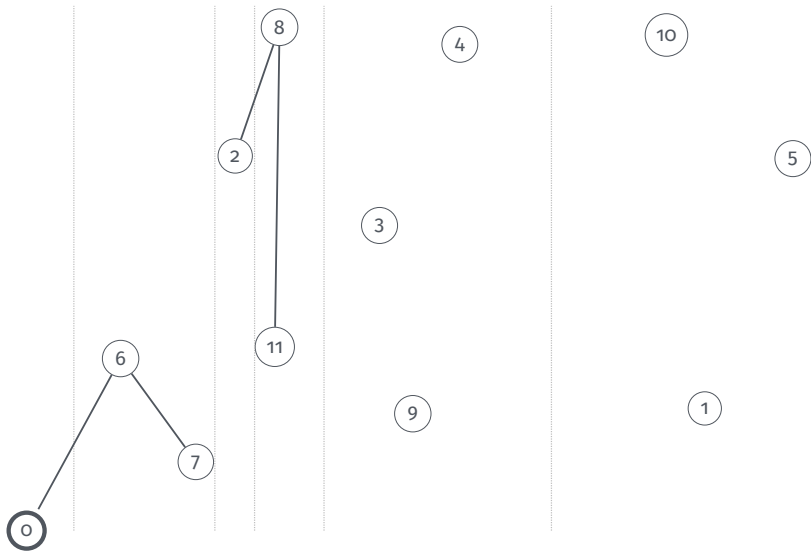
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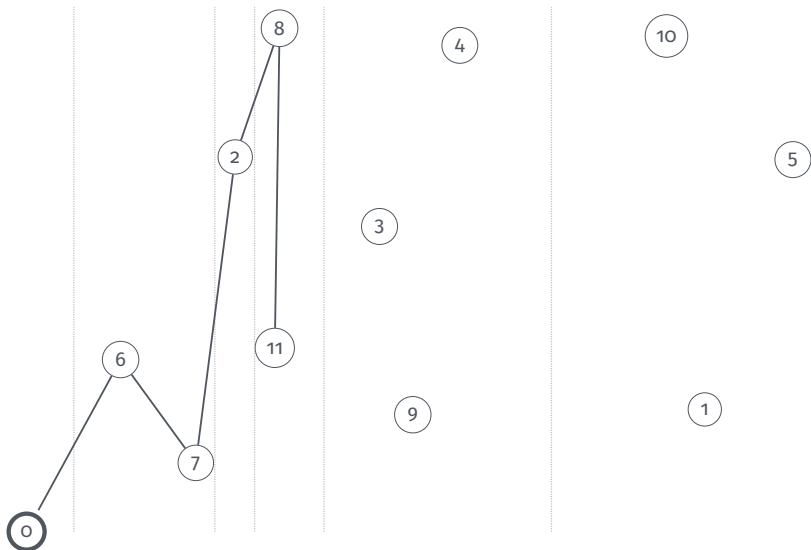
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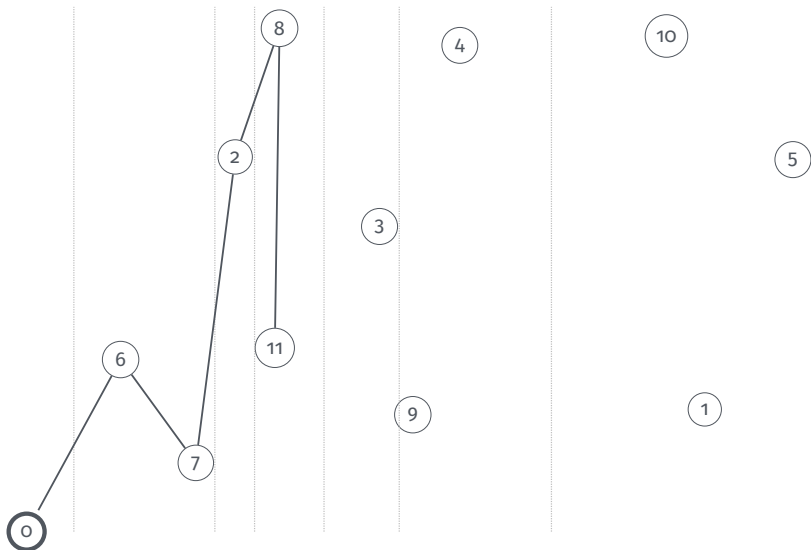
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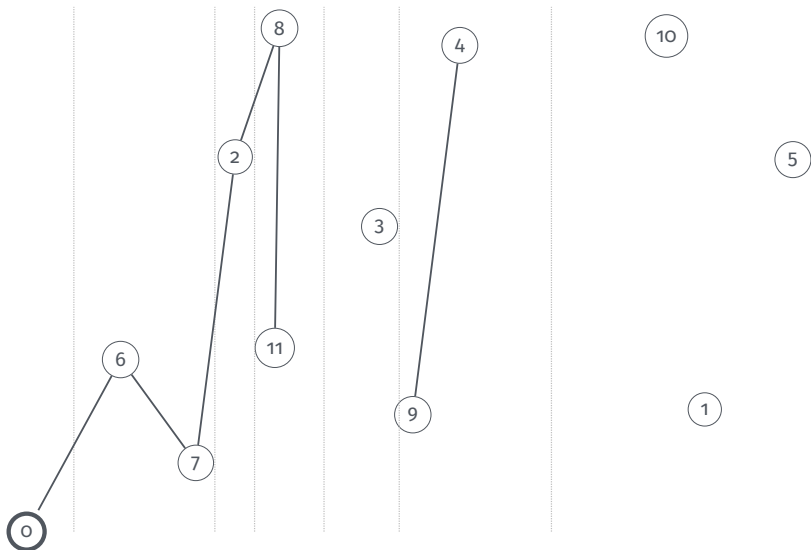
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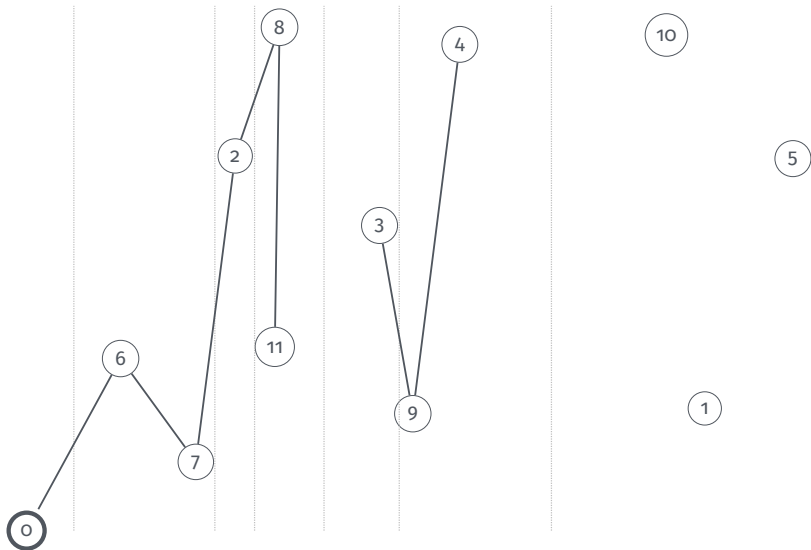
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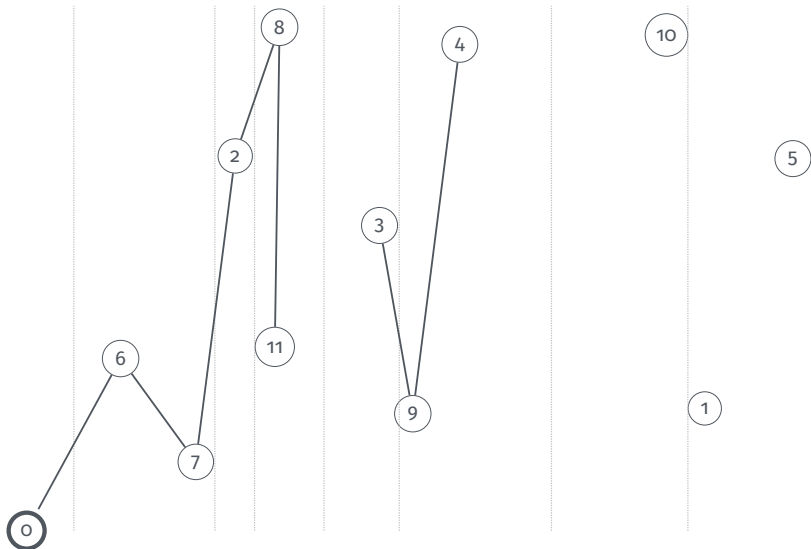
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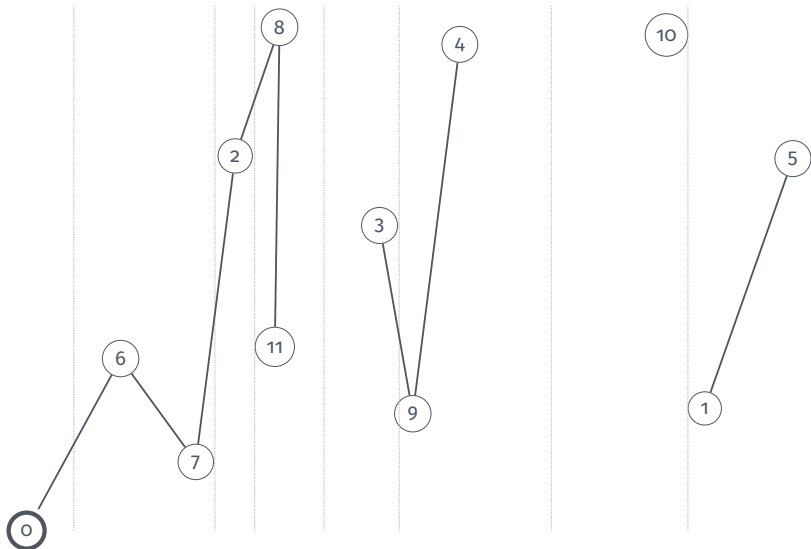
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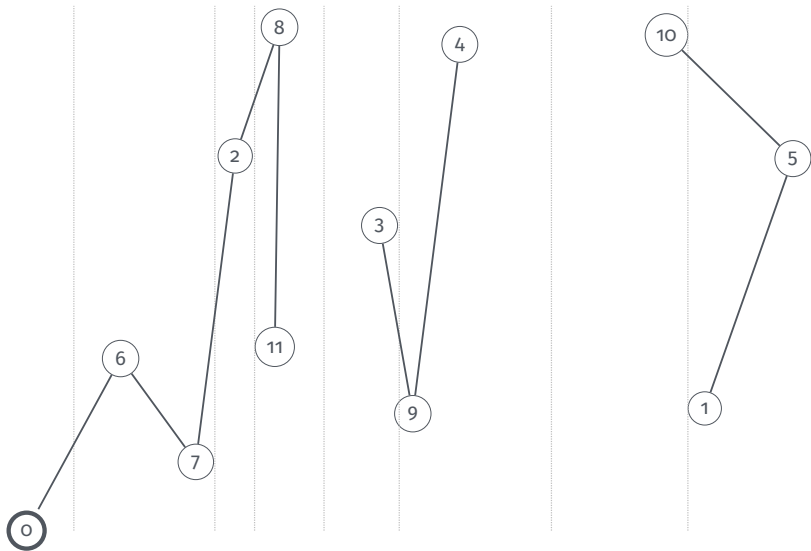
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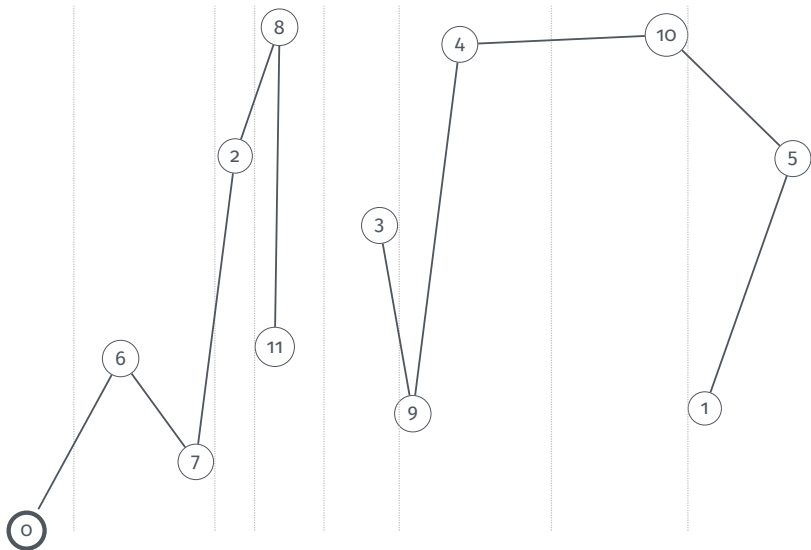
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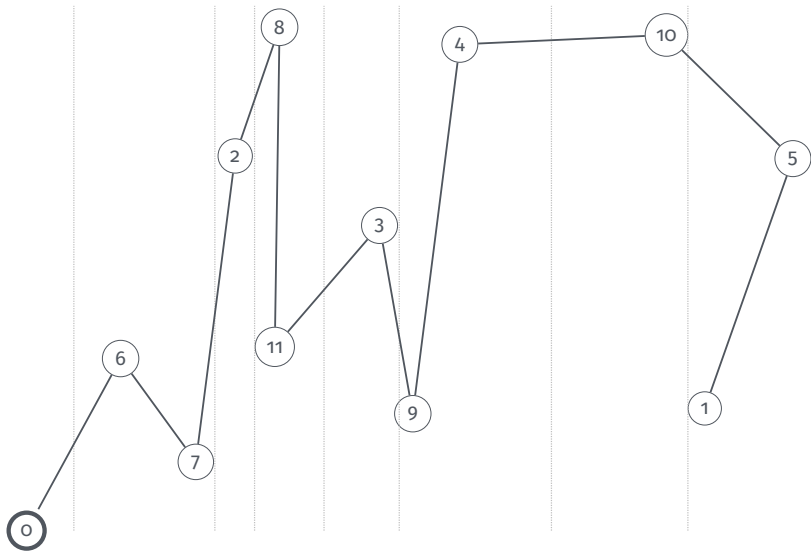
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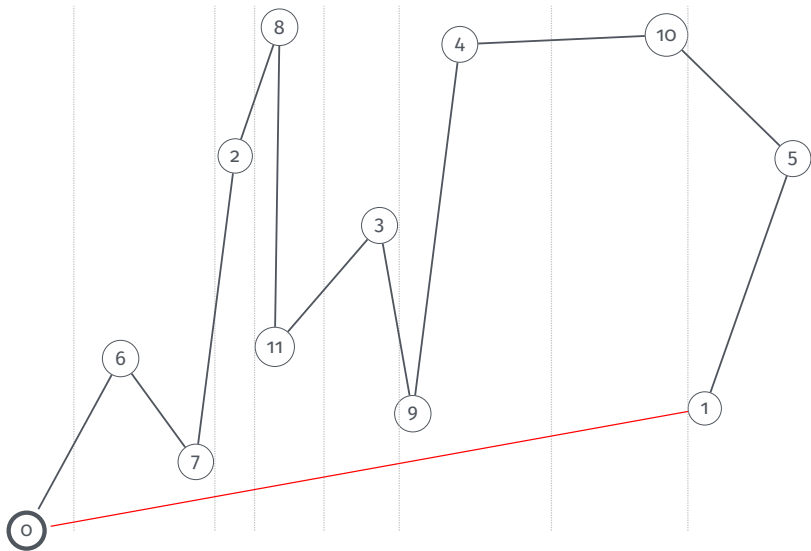
EXAMPLE



EXAMPLE



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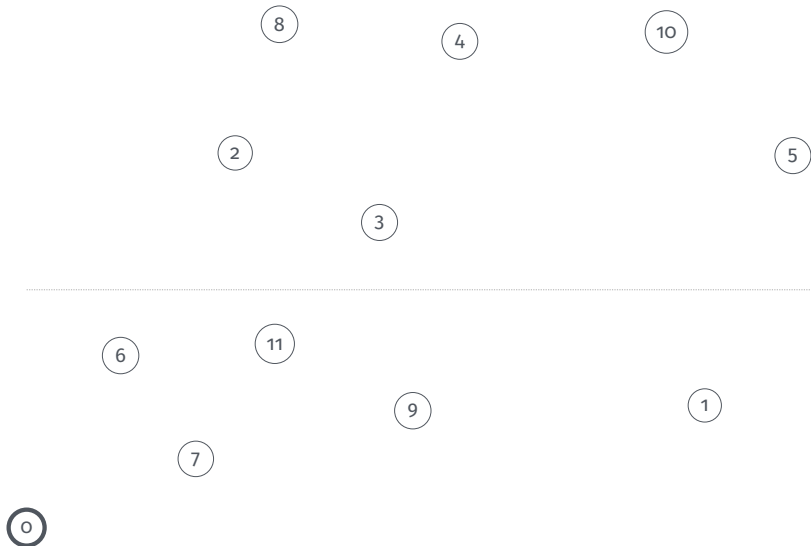
- how do we sort magnets per x coordinate?
- not clever to cut the plane along the same direction each time. Better to alternate, vertical, horizontal
- we need to close the loop at the end

ALGORITHM #3

EXAMPLE



EXAMPLE



EXAMPLE



EXAMPLE



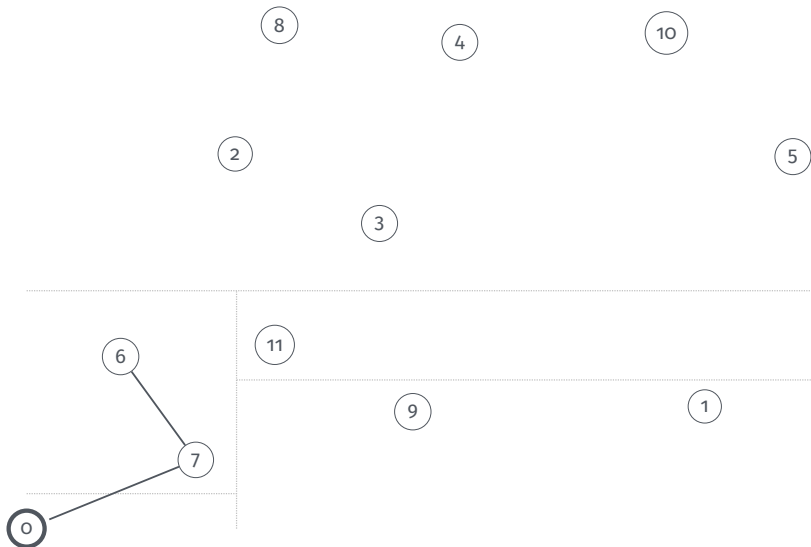
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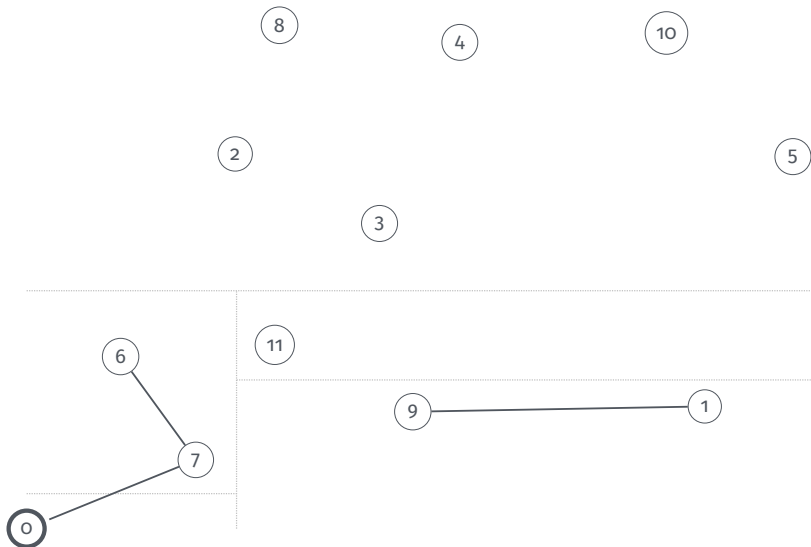
EXAMPLE



EXAMPLE



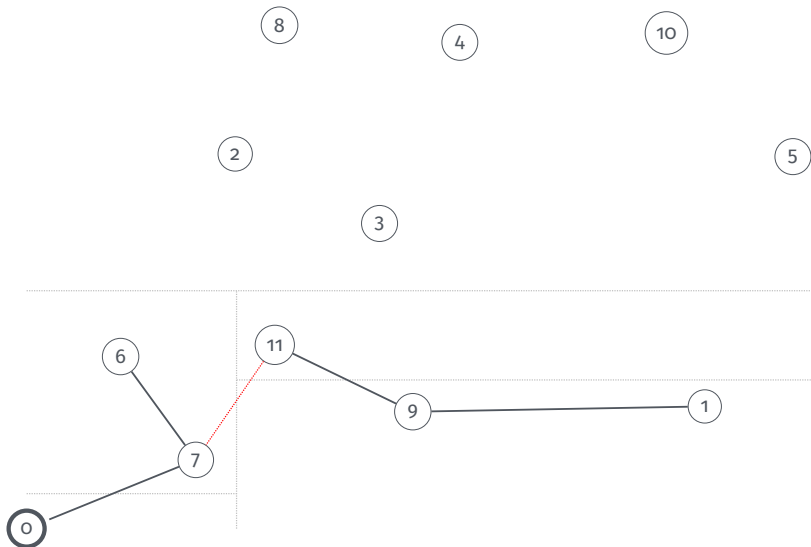
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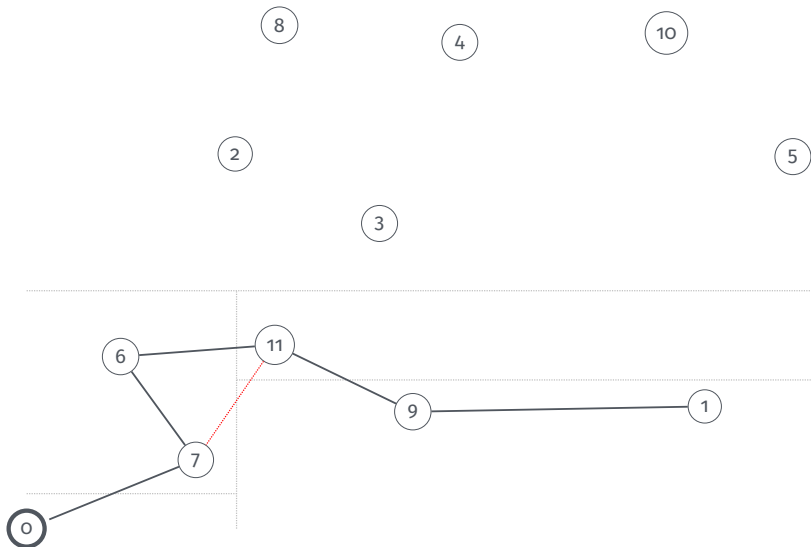
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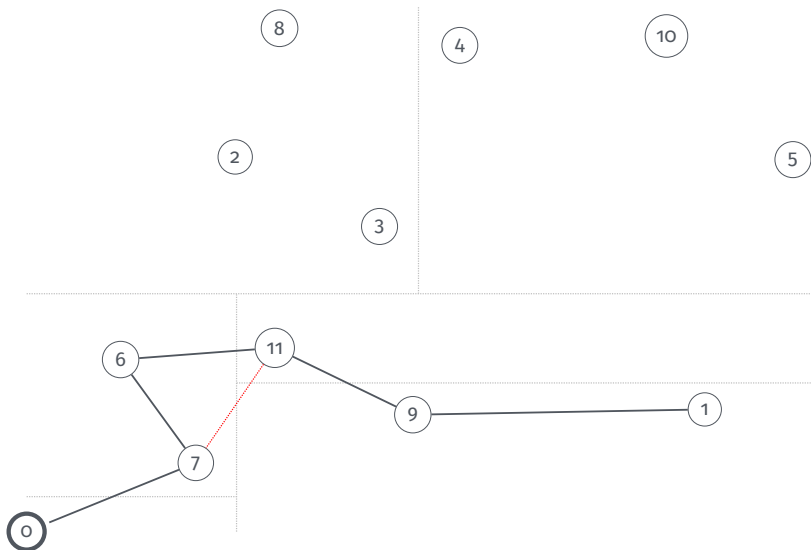
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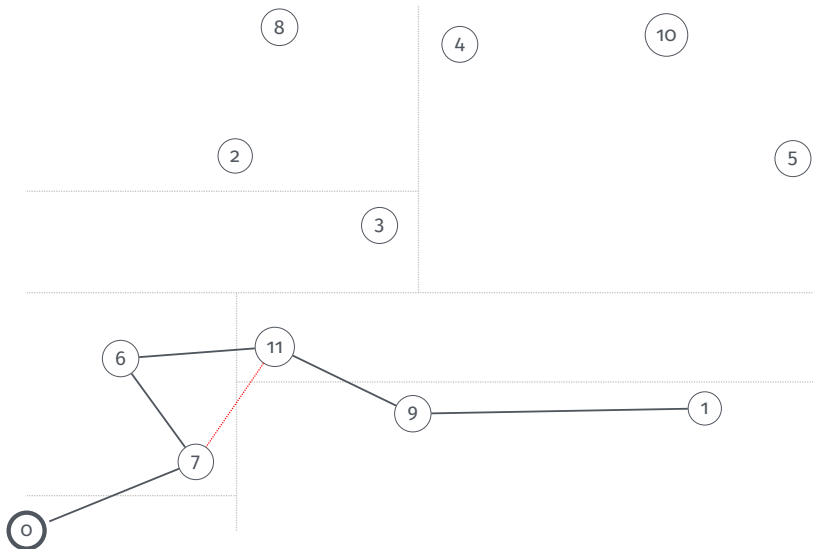
EXAMPLE



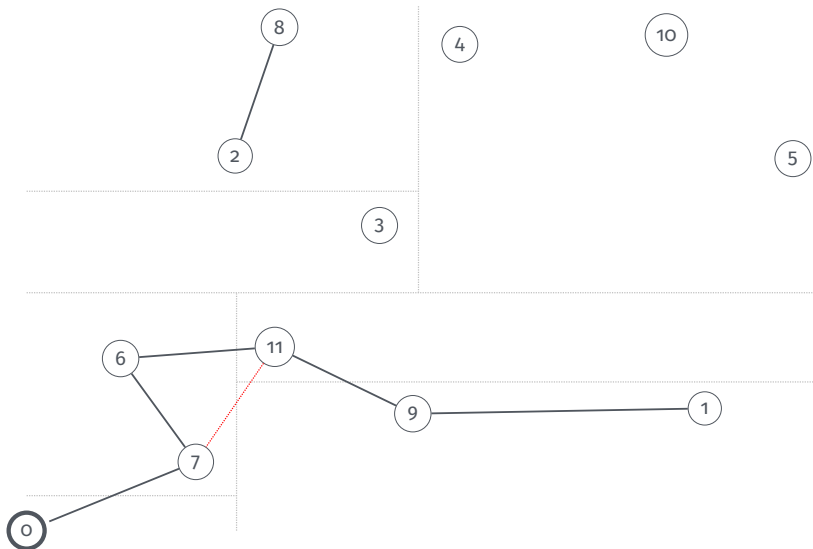
EXAMPLE



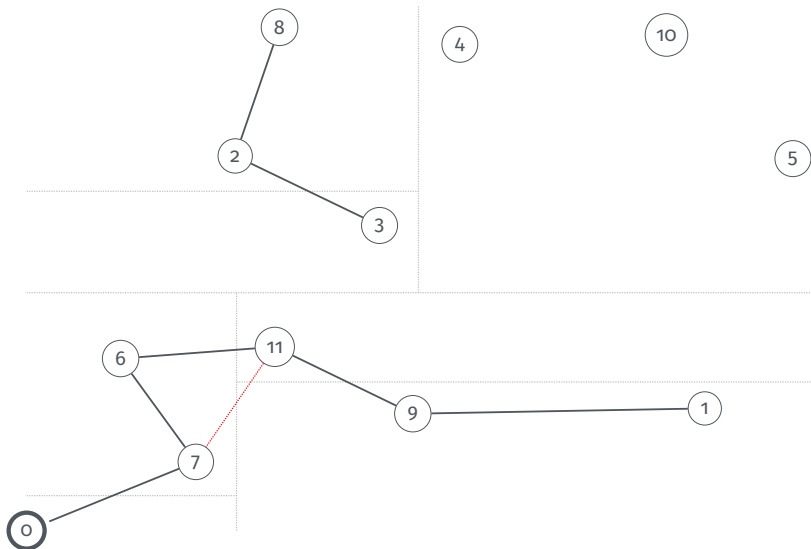
EXAMPLE



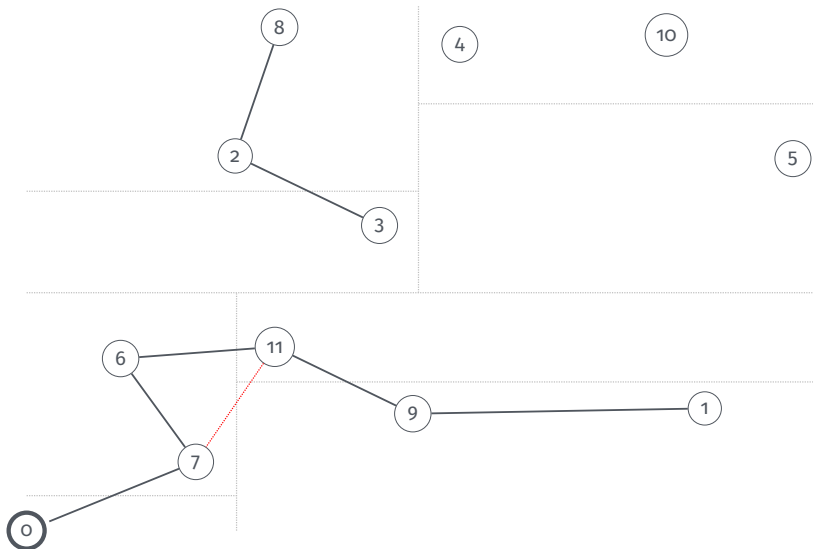
EXAMPLE



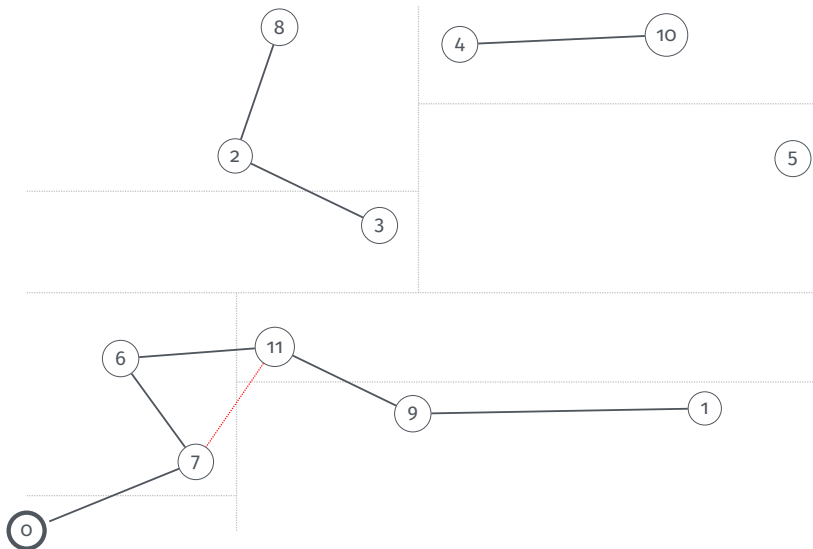
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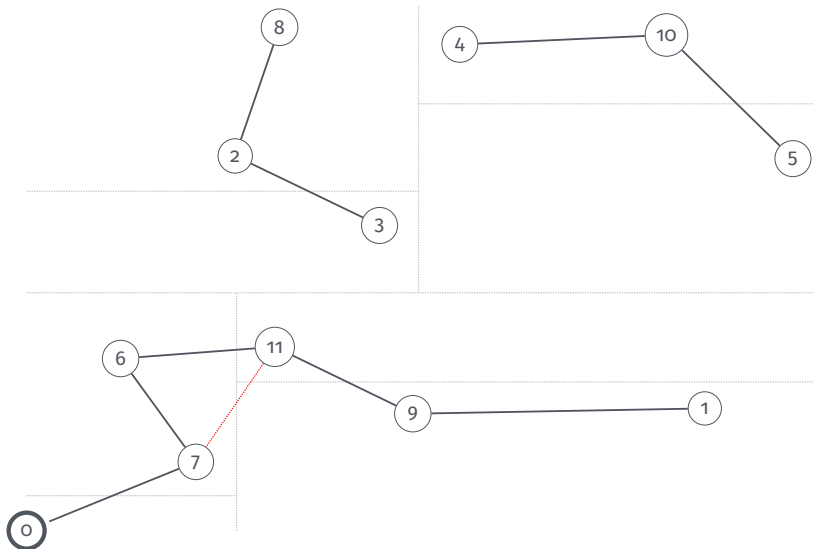
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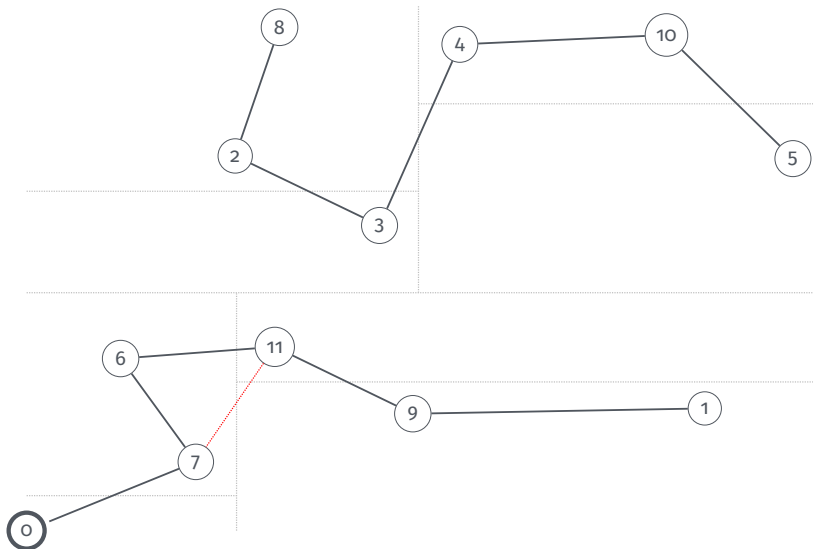
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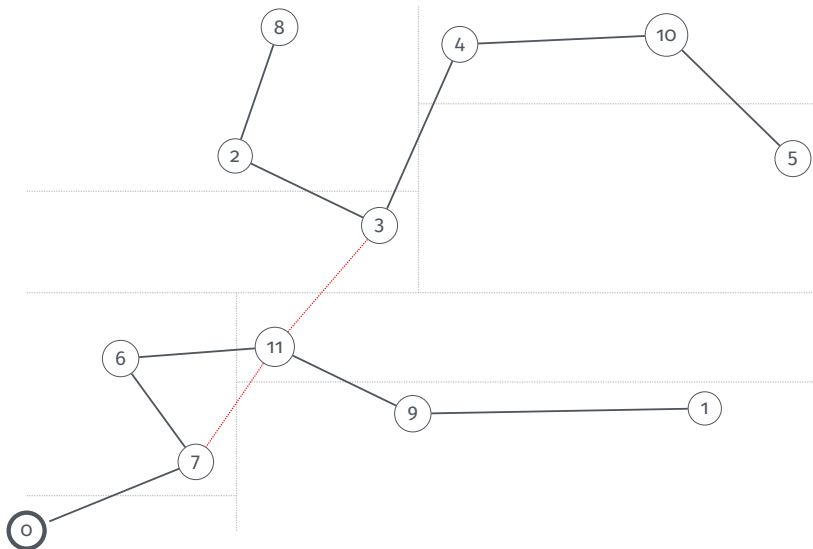
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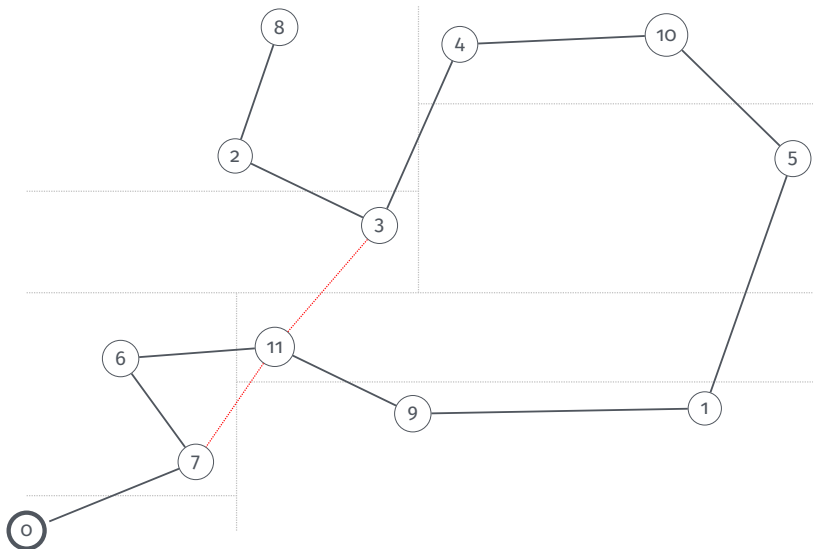
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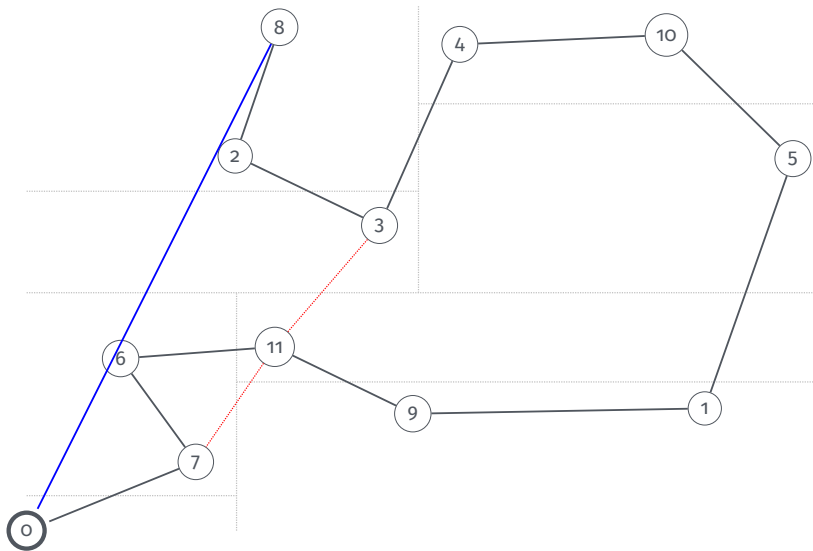
EXAMPLE



EXAMPLE



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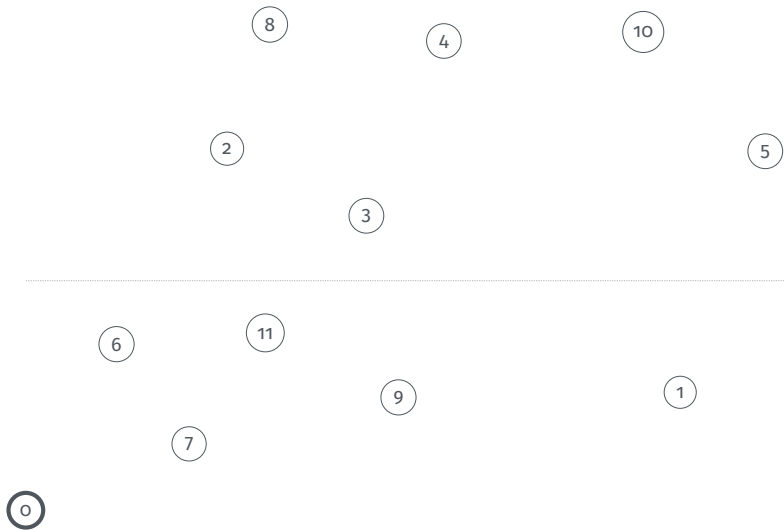
- vertical and horizontal cuts are arbitrary and may not be optimal
- how to identify whether a magnet has been linked more than one time already?
- how to identify the two nodes that need to be linked so we can close the loop?

ALGORITHM #4

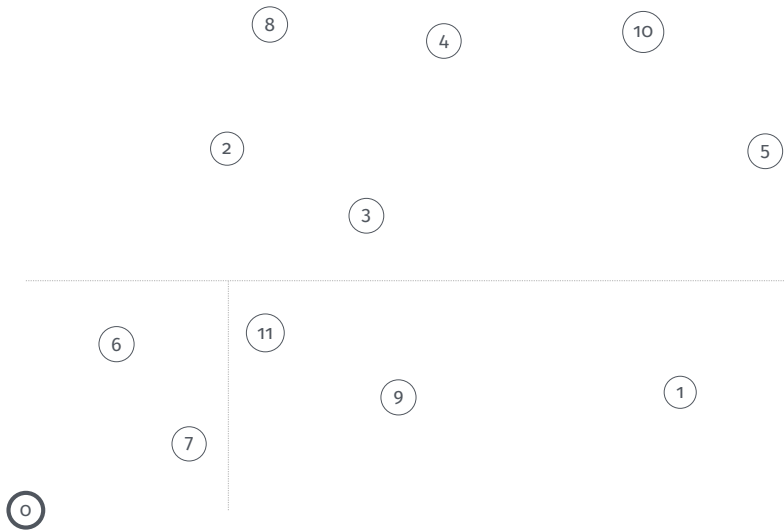
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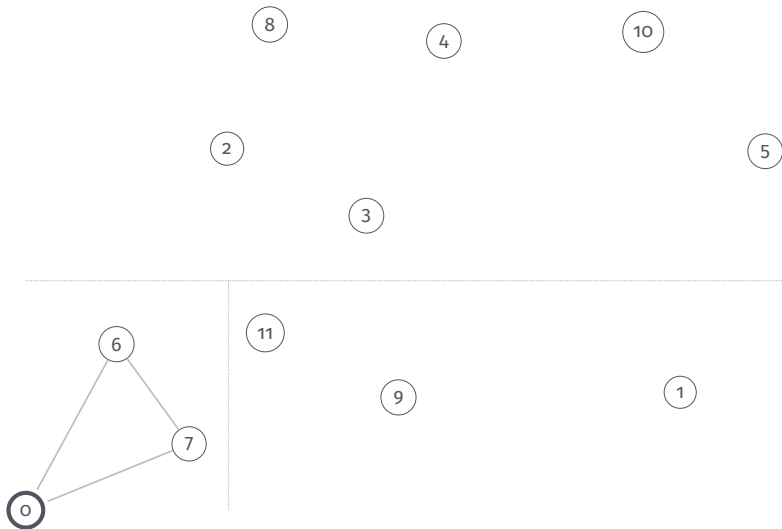
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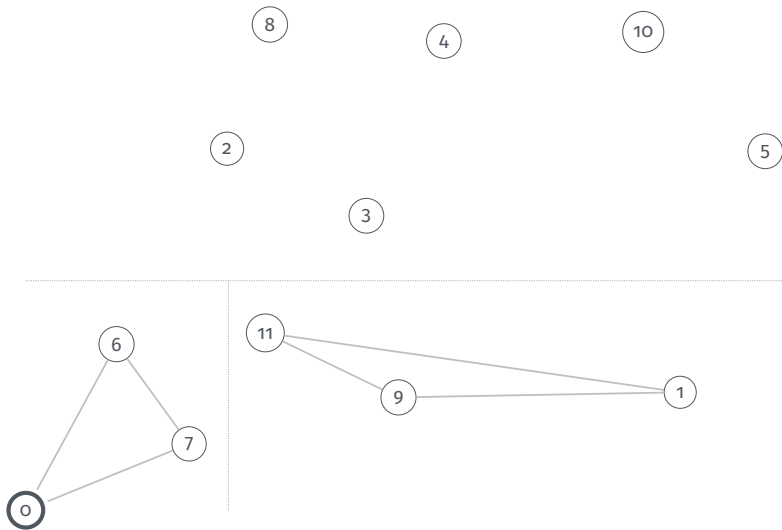
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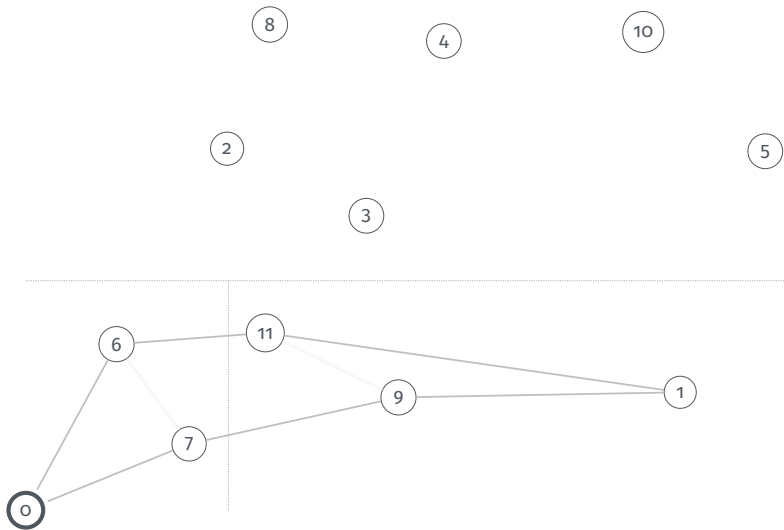
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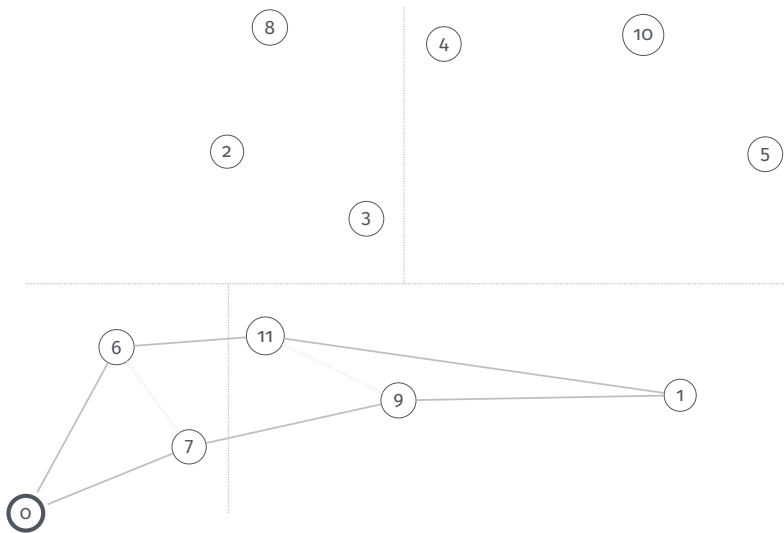
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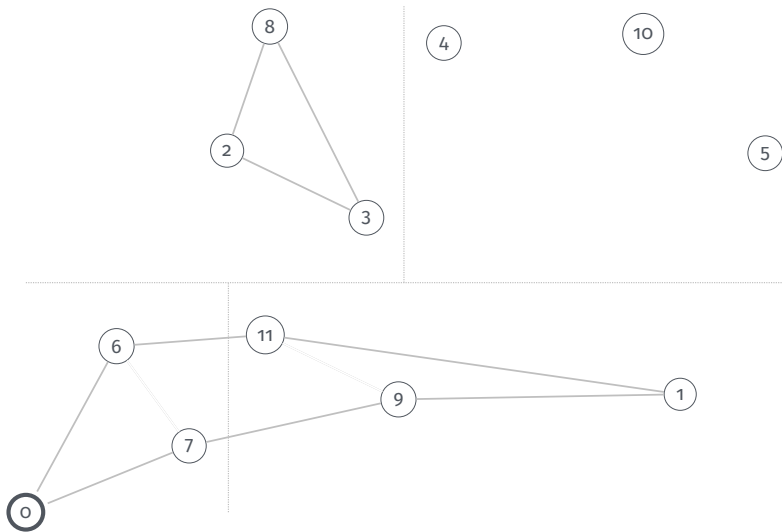
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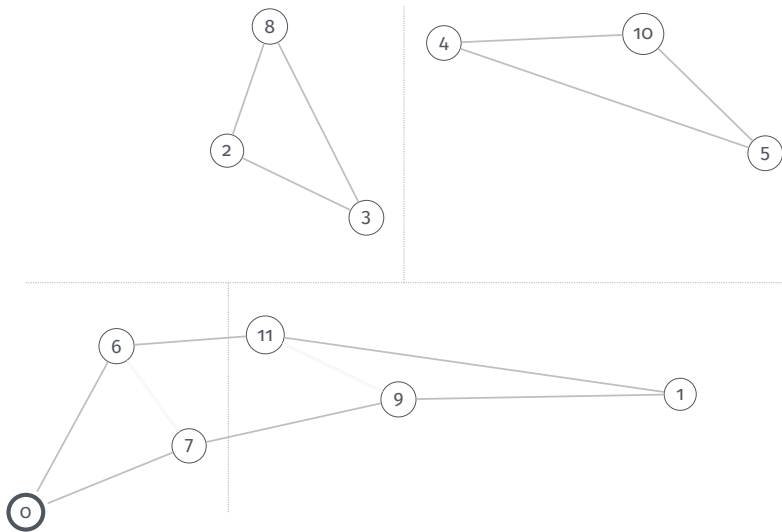
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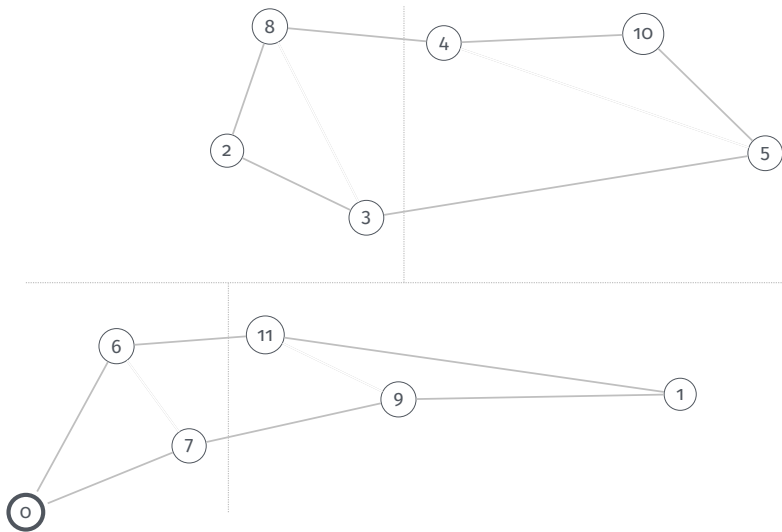
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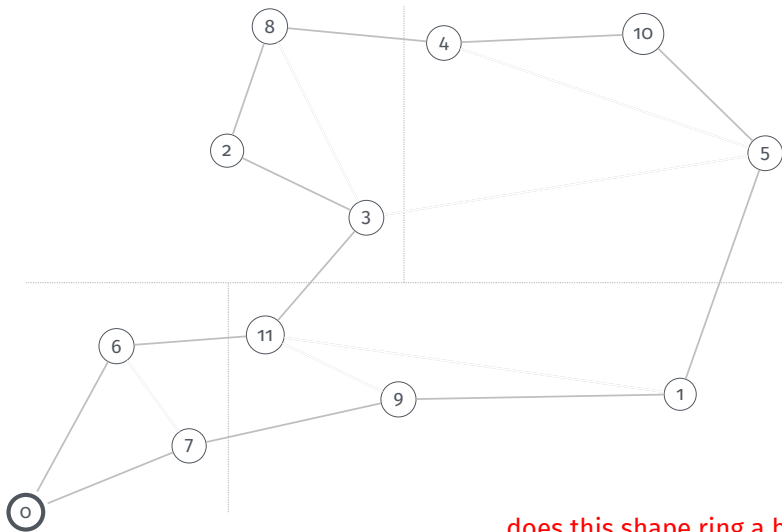
EXAMPLE



EXAMPLE



EXAMPLE



does this shape ring a bell?