

# General(Data Structures)

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## Cycle Detection:

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- Tortoise and hare
  - tortoise pointer moves 1 at each step
  - hare moves 2 at each step
  - if they ever meet their is a cycle
  - you can also use this algorithm (with more steps) to find start of cycle and the length of the cycle
- Applicable data structures
  - Linked List
  - Graph

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## General Common Issues:

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- Space vs Indexing speed vs Sorting speed

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## sources:

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- [https://en.wikipedia.org/wiki/Cycle\\_detection](https://en.wikipedia.org/wiki/Cycle_detection)