

How can we make range updates ?

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 - $O(m \log n)$ where m is the range length. Too slow.
- Lazy propagation.
 - make updates only when you have to!

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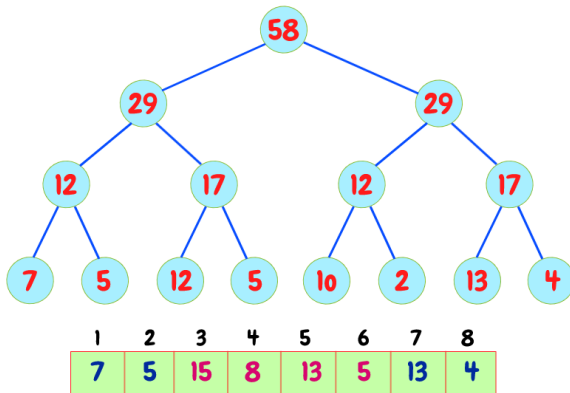
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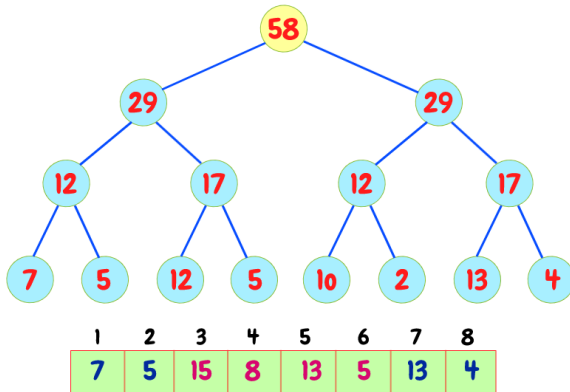
Lazy Propagation: range update

updateRange(3, 6, 3)



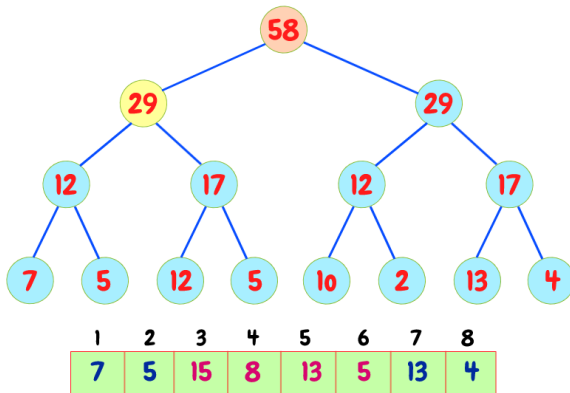
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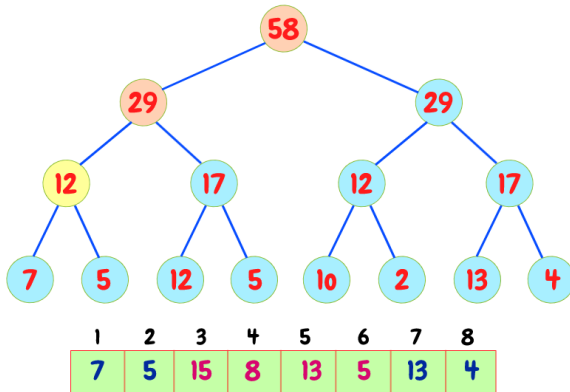
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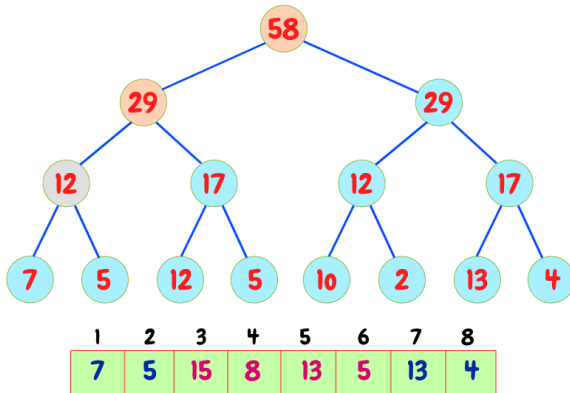
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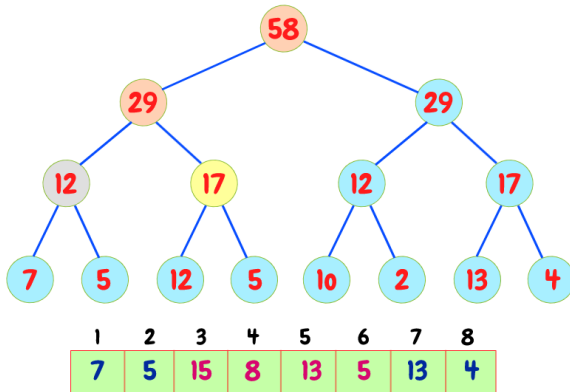
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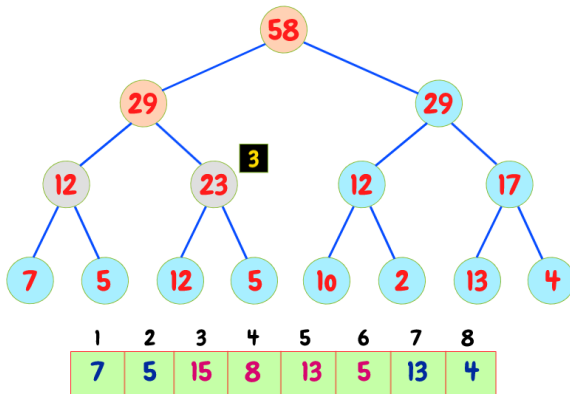
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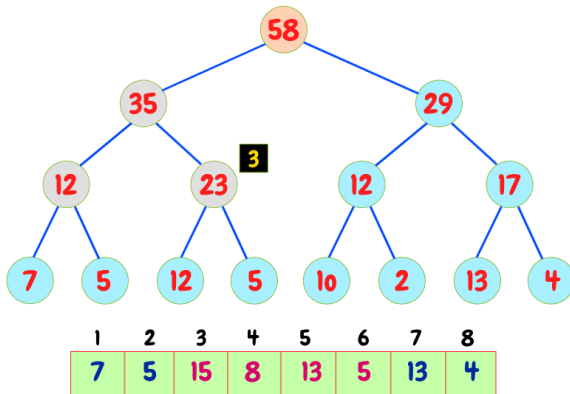
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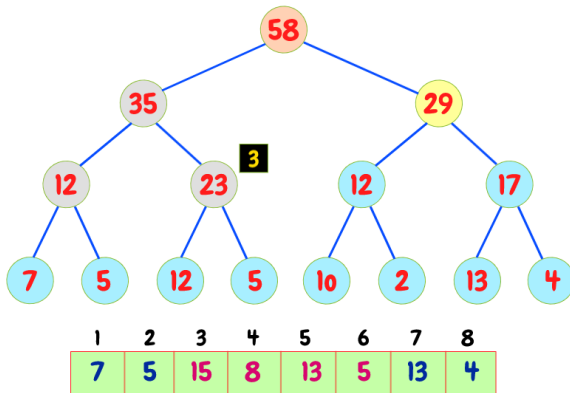
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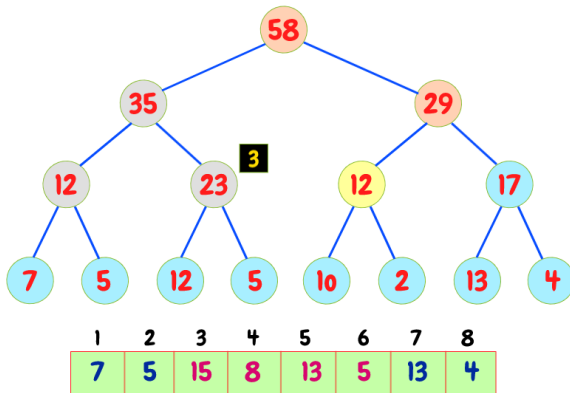
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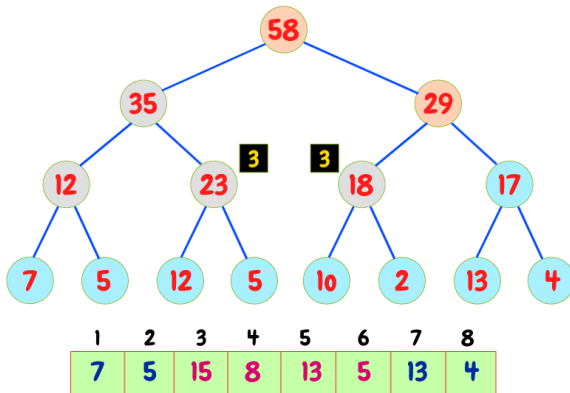
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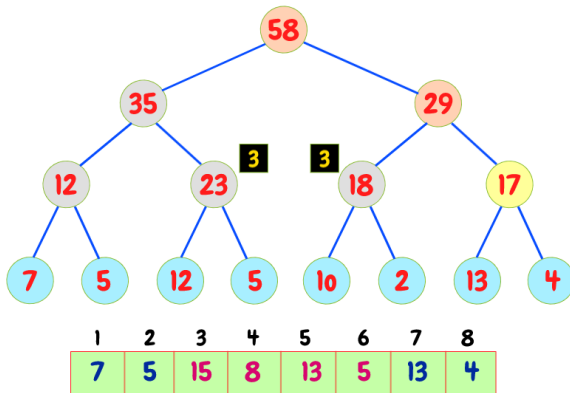
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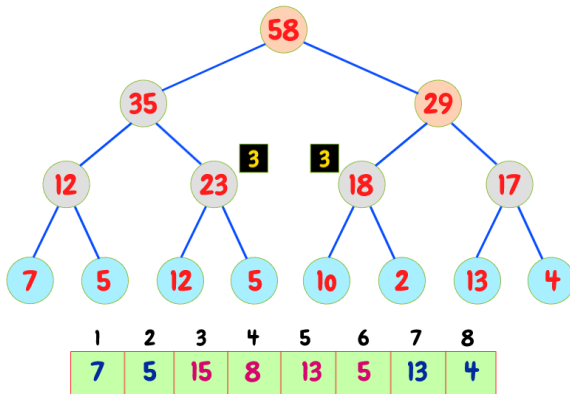
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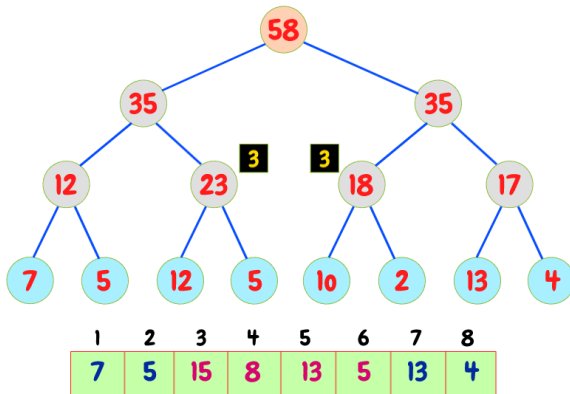
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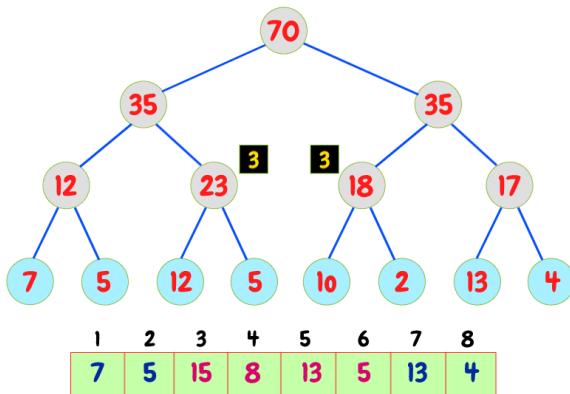
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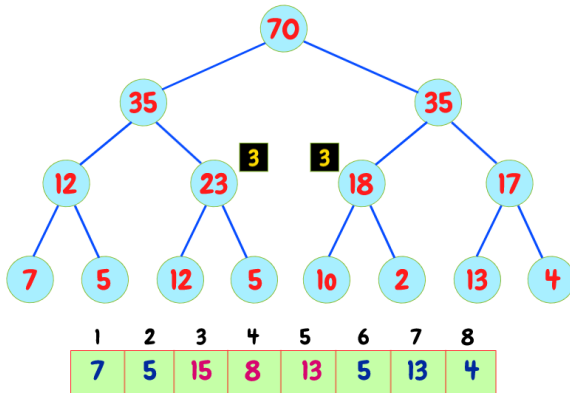
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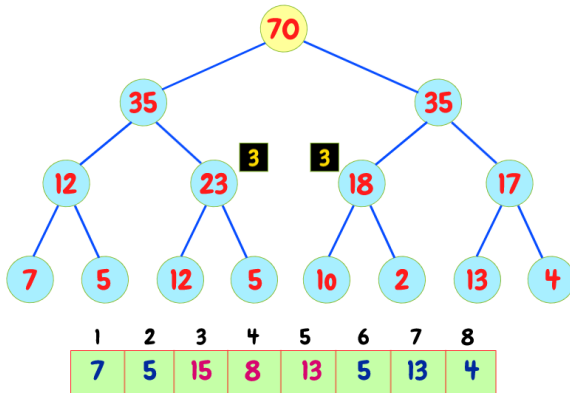
Lazy Propagation: range query

query(3, 5)



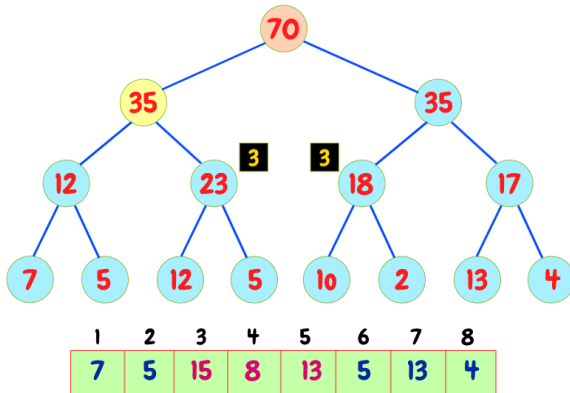
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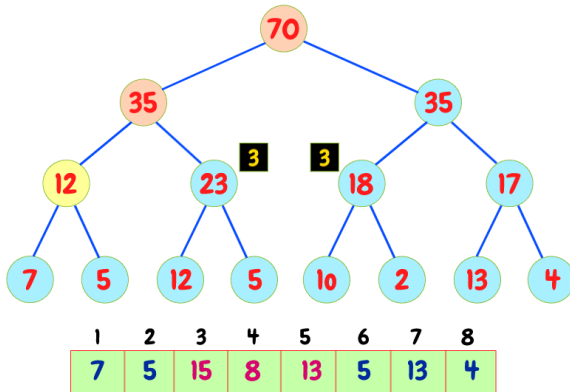
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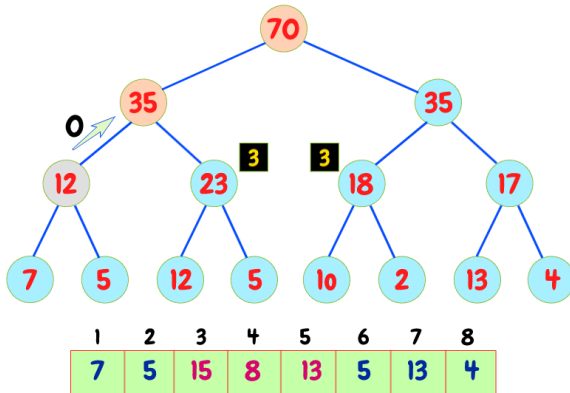
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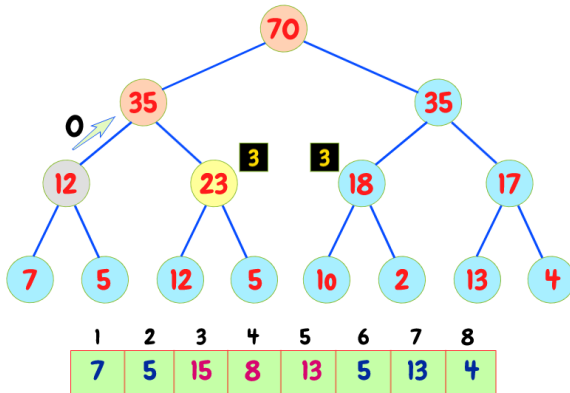
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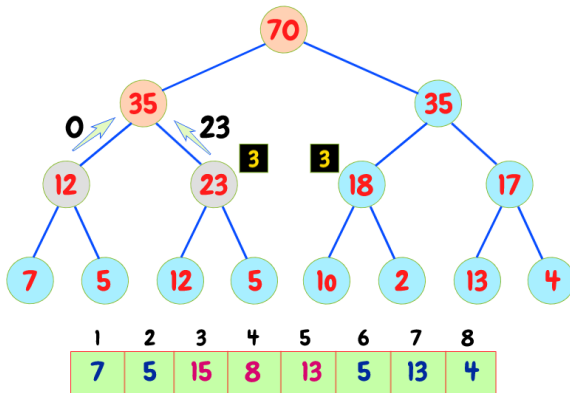
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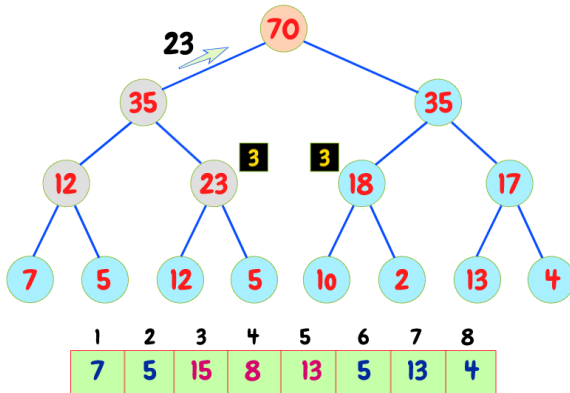
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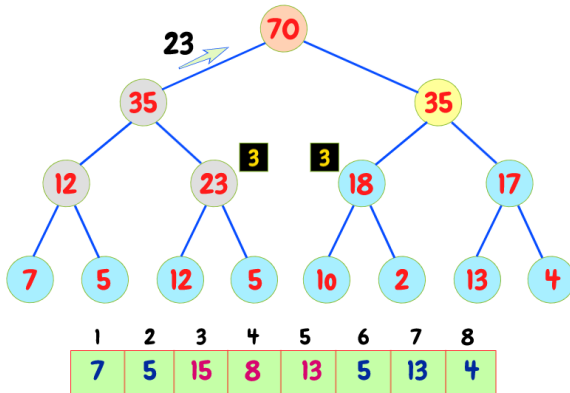
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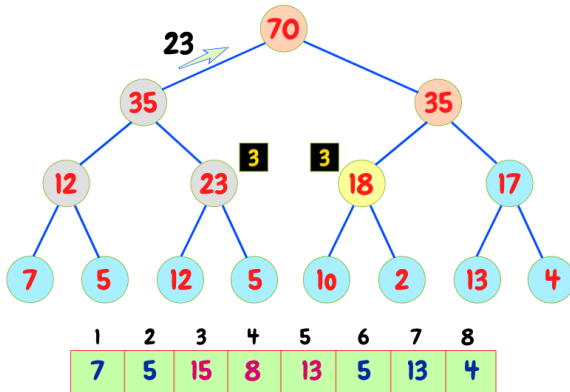
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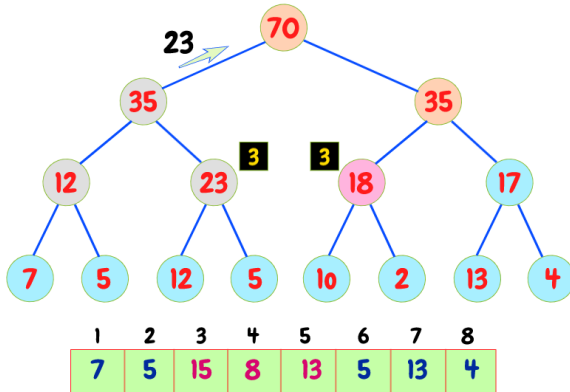
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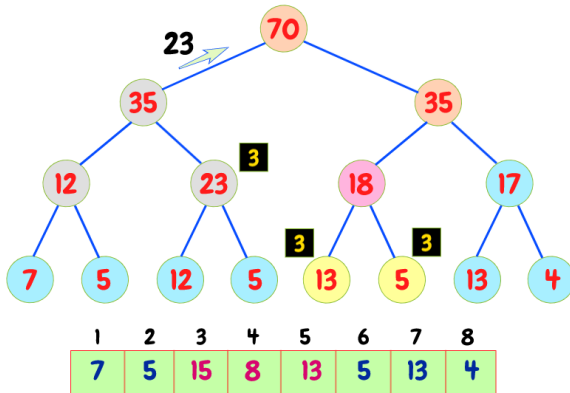
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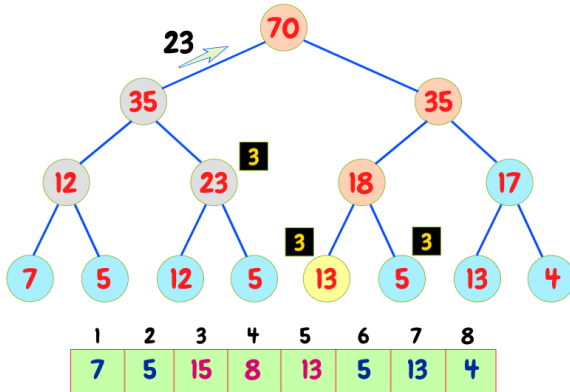
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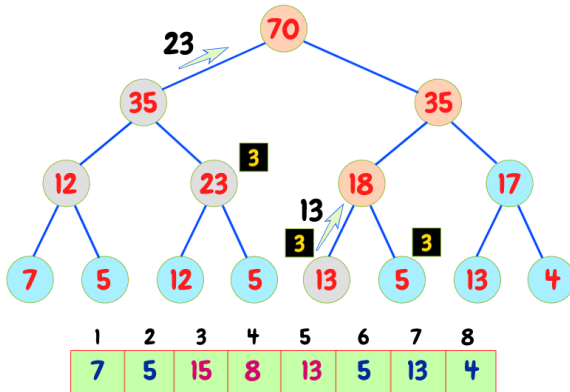
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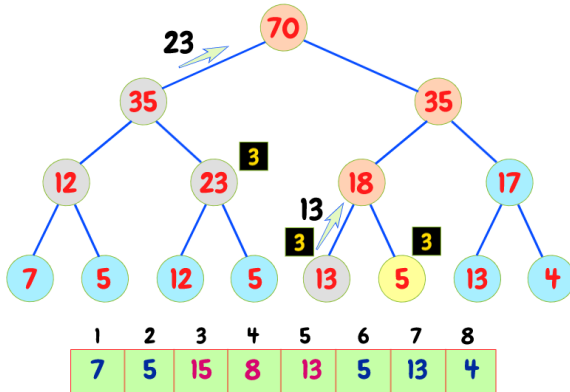
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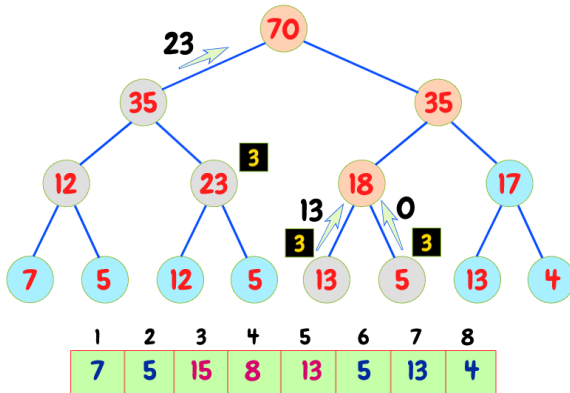
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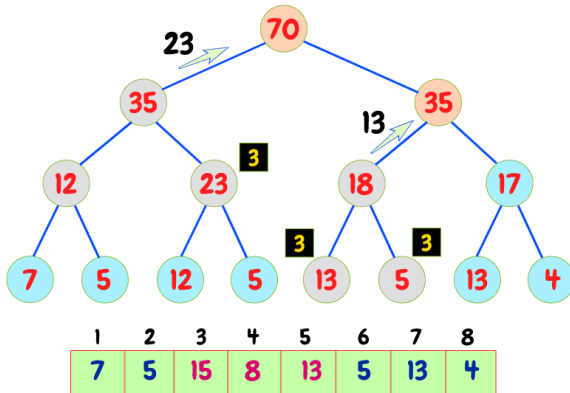
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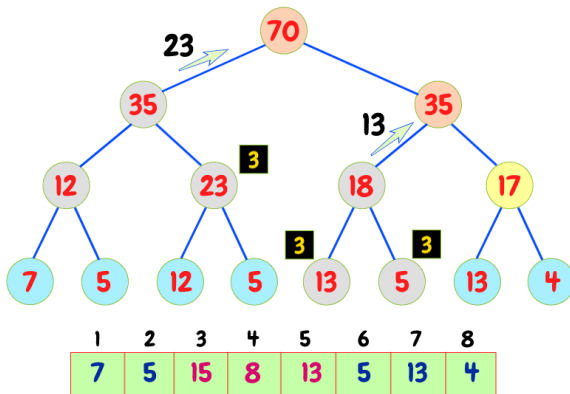
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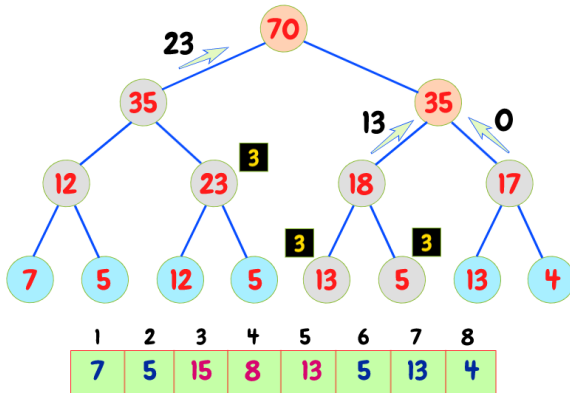
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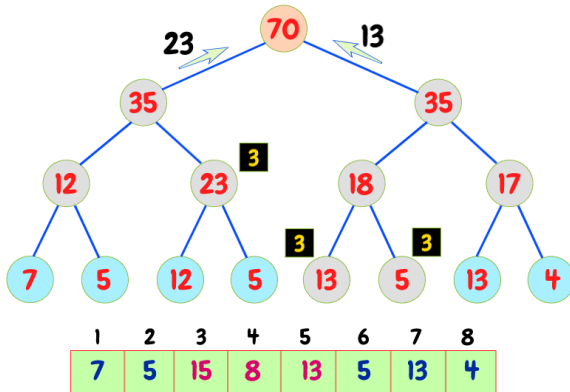
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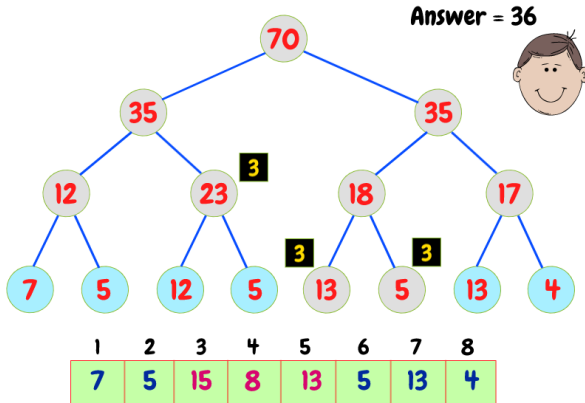
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References

- Maximal article. *Segment Trees*.
- HackerEarth tutorial. *Segment Trees*.
- Codeforces blogs. *Algorithm Gym :: Everything About Segment Trees*.

*Hyperlinks