Limited-memory heuristic search

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Search Heuristics with limited memory

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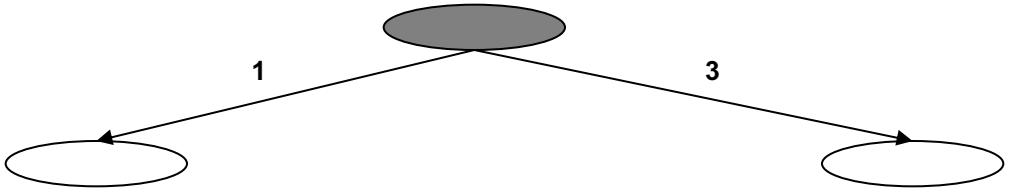

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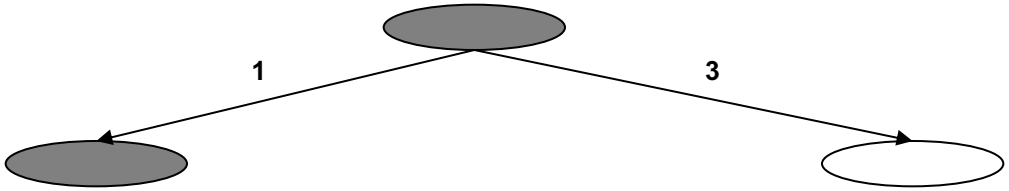

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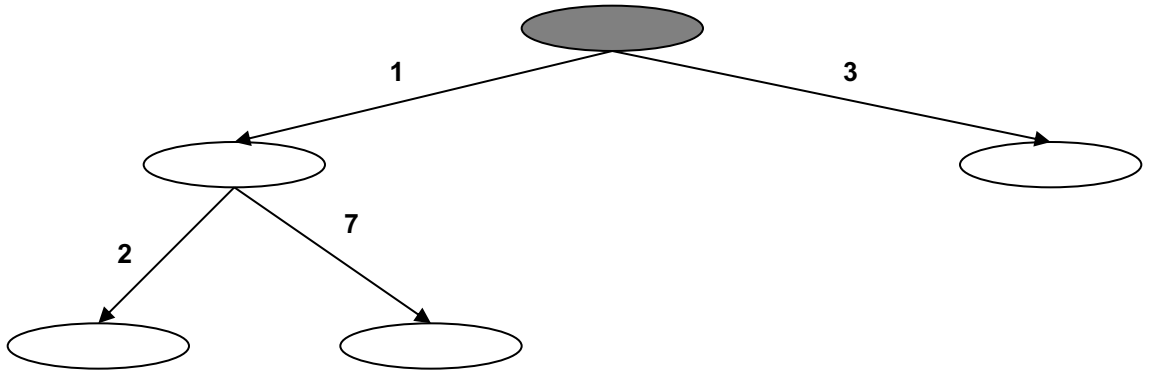

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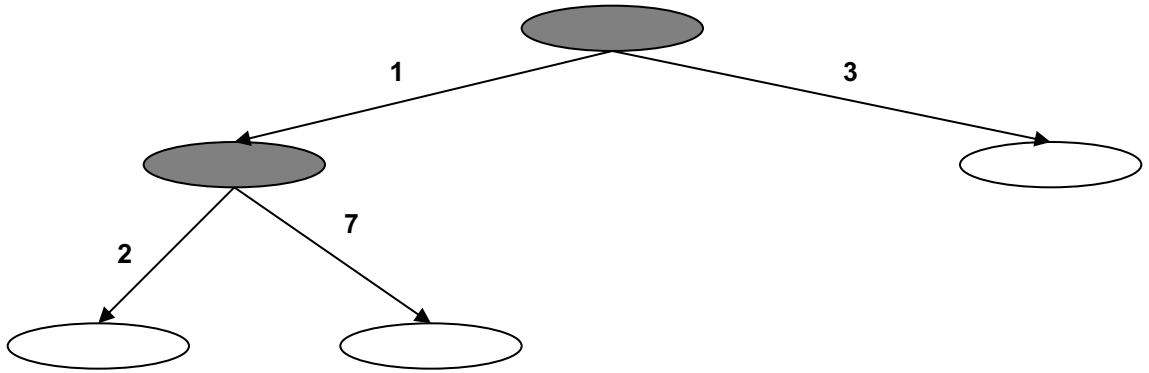

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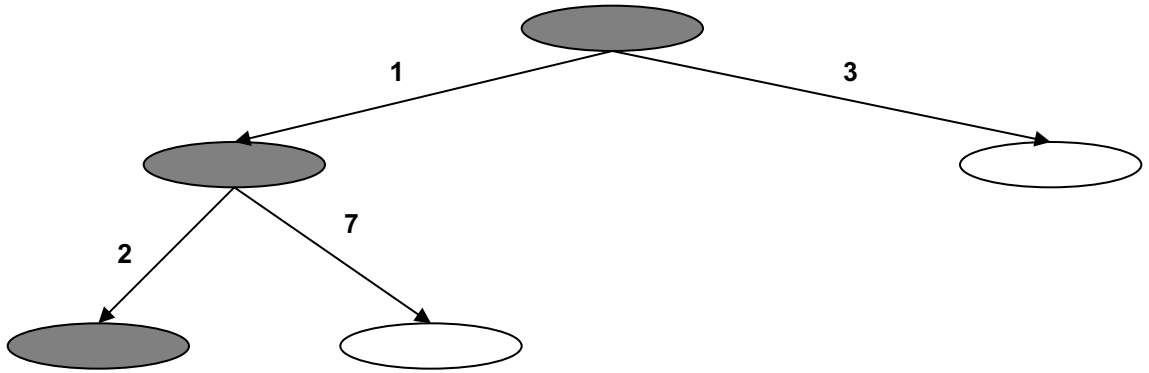

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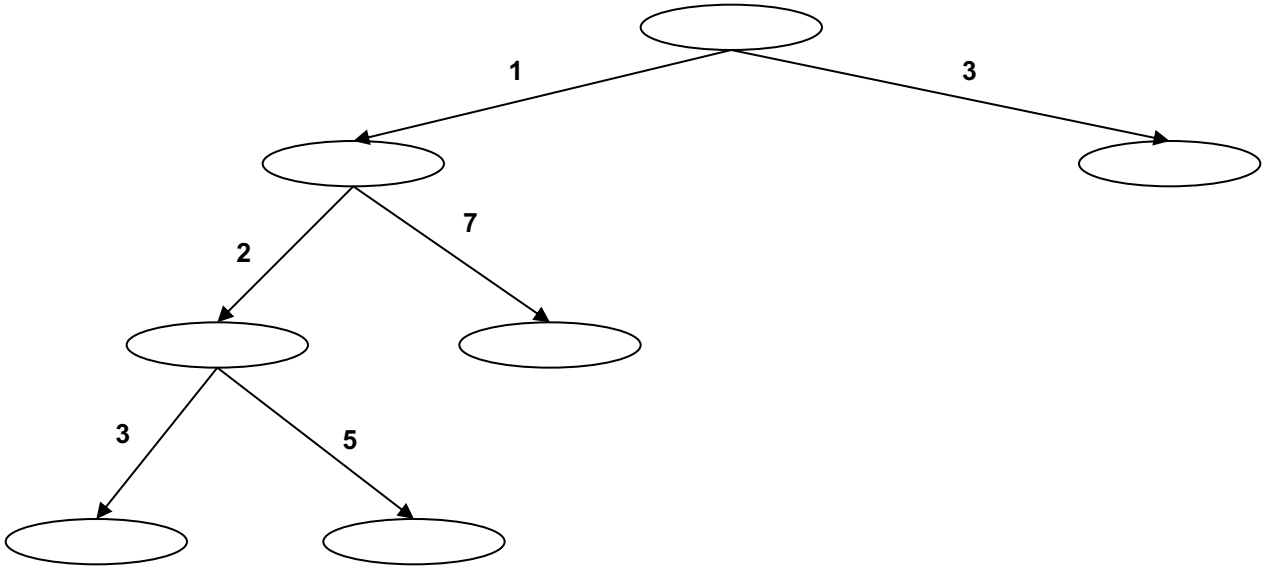

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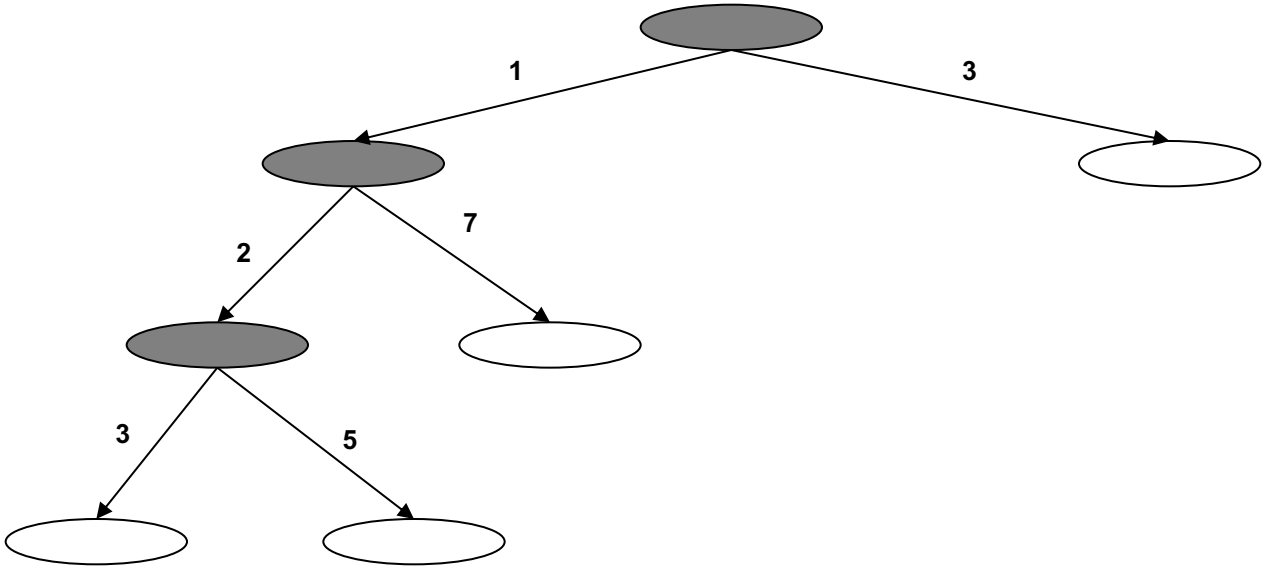

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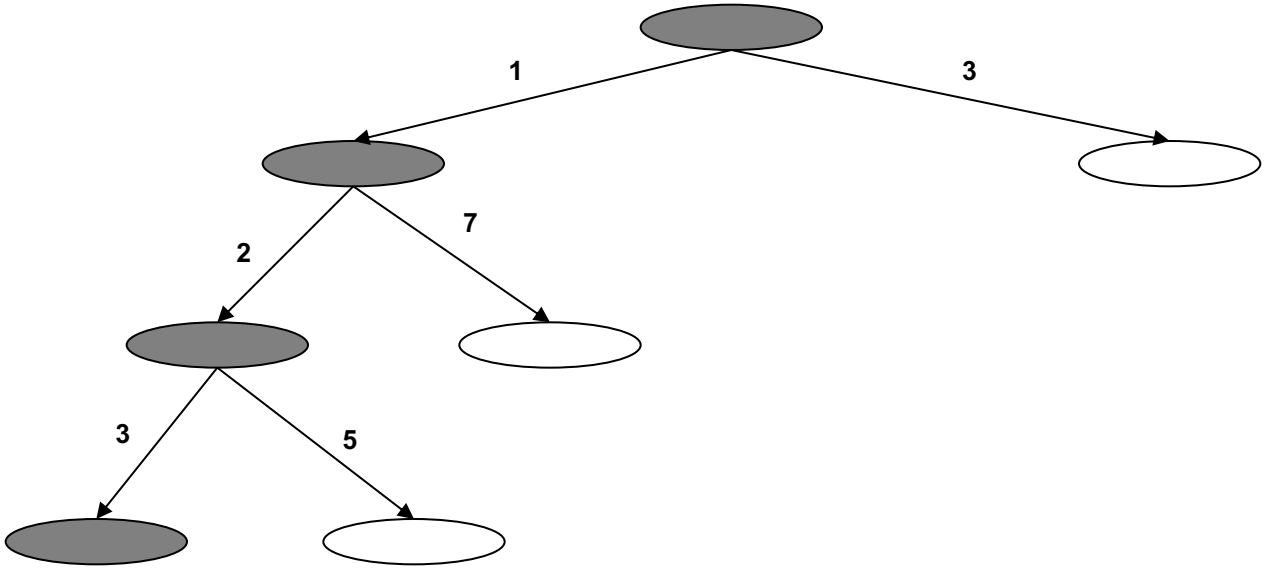

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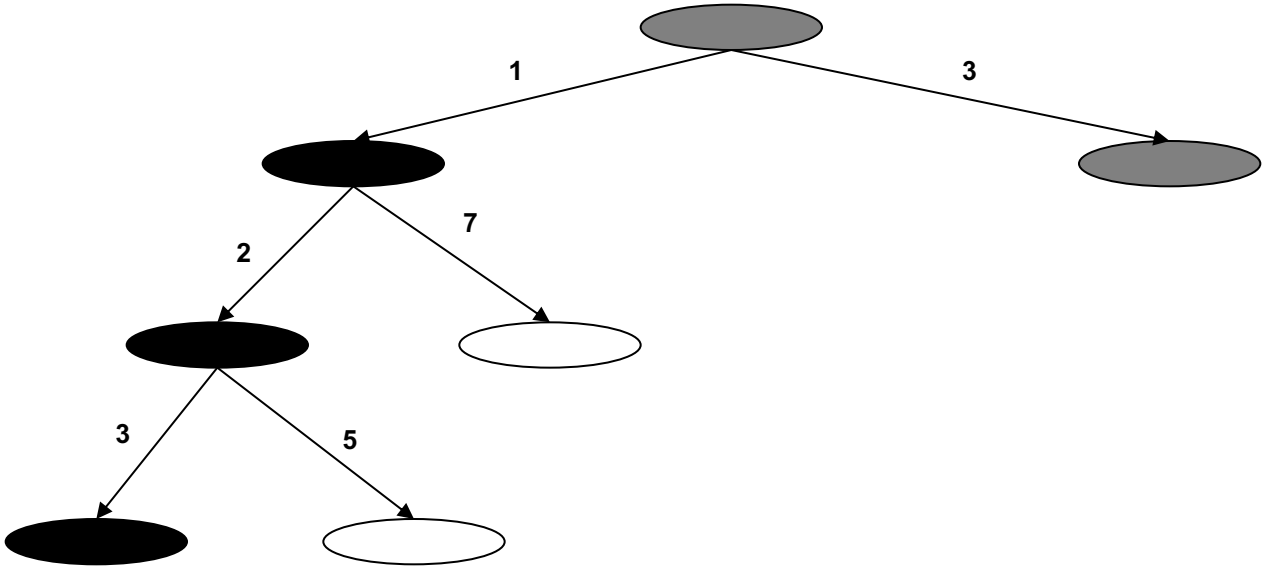

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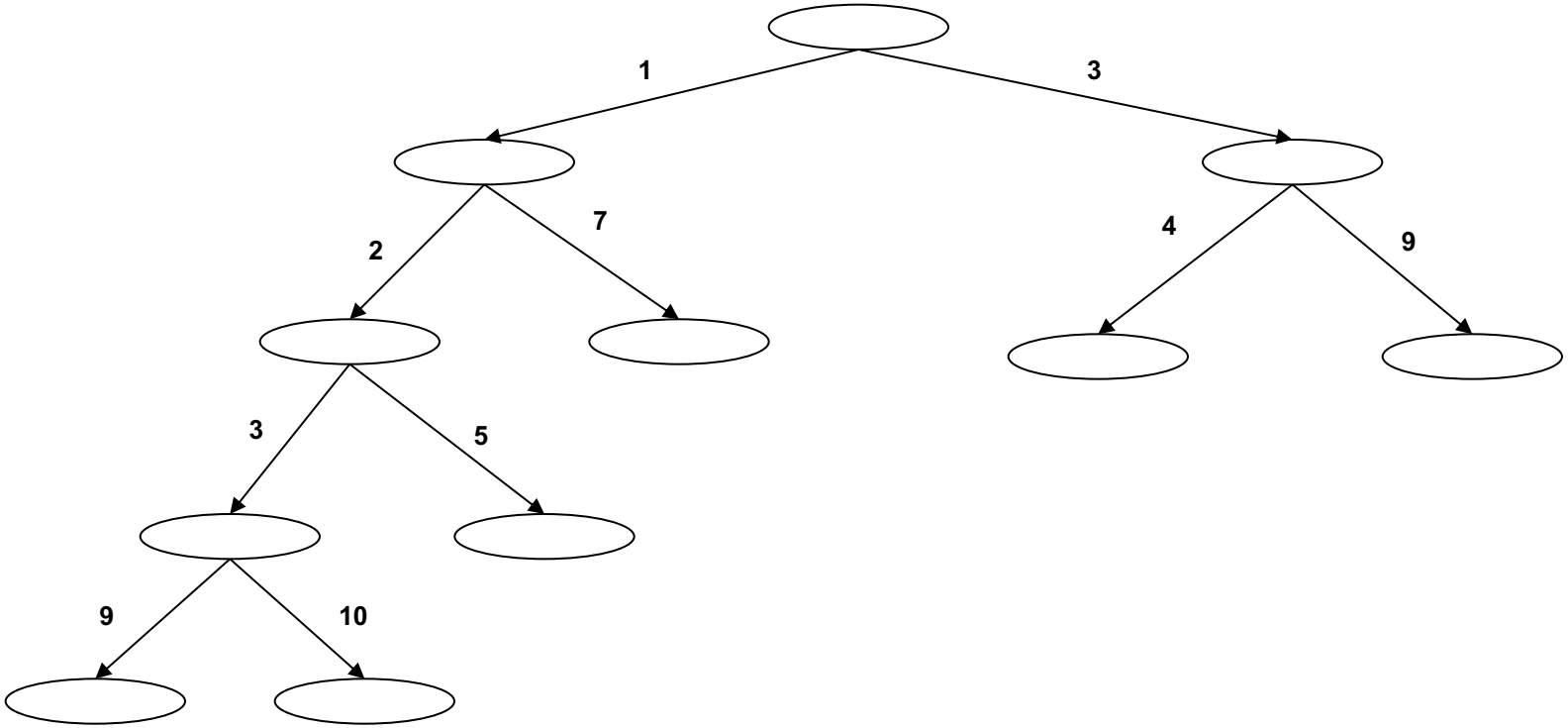

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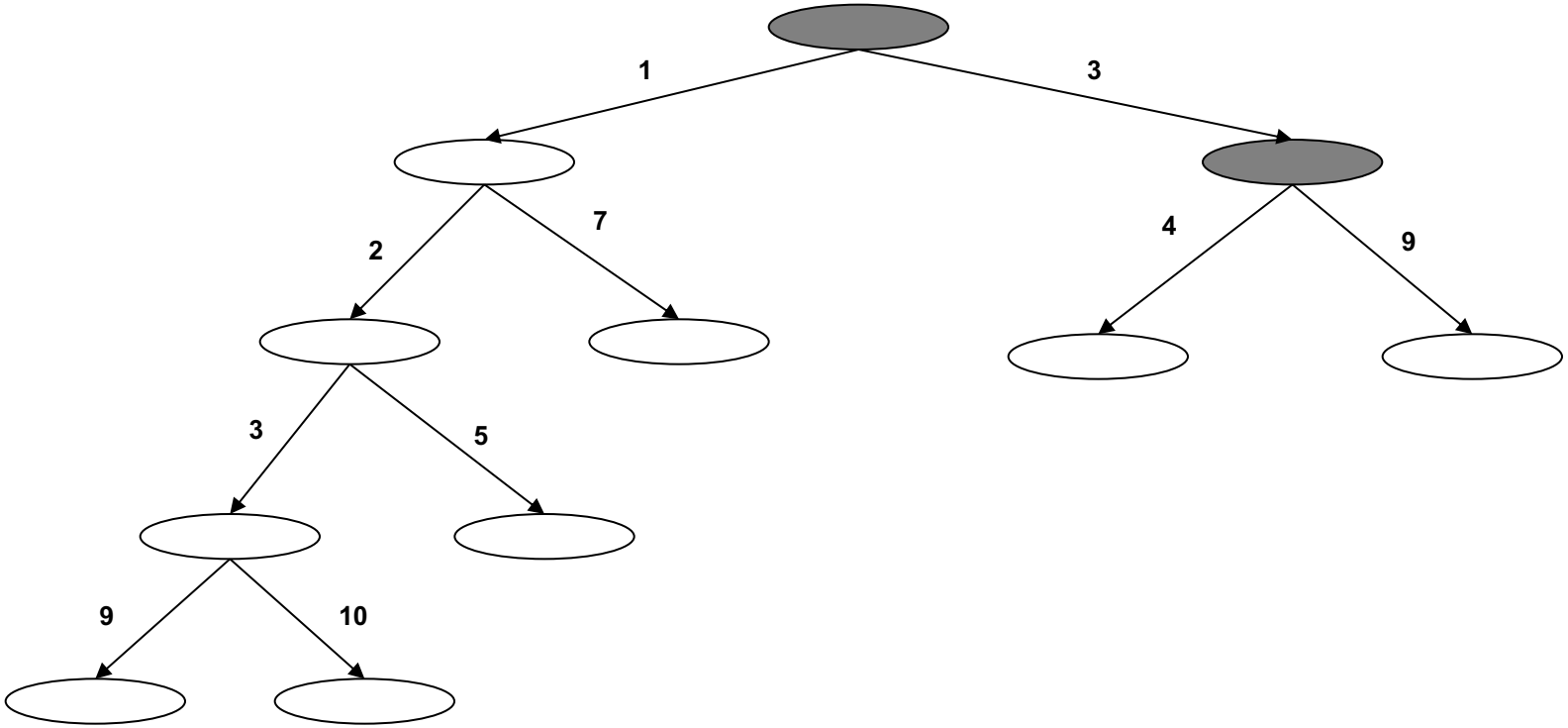

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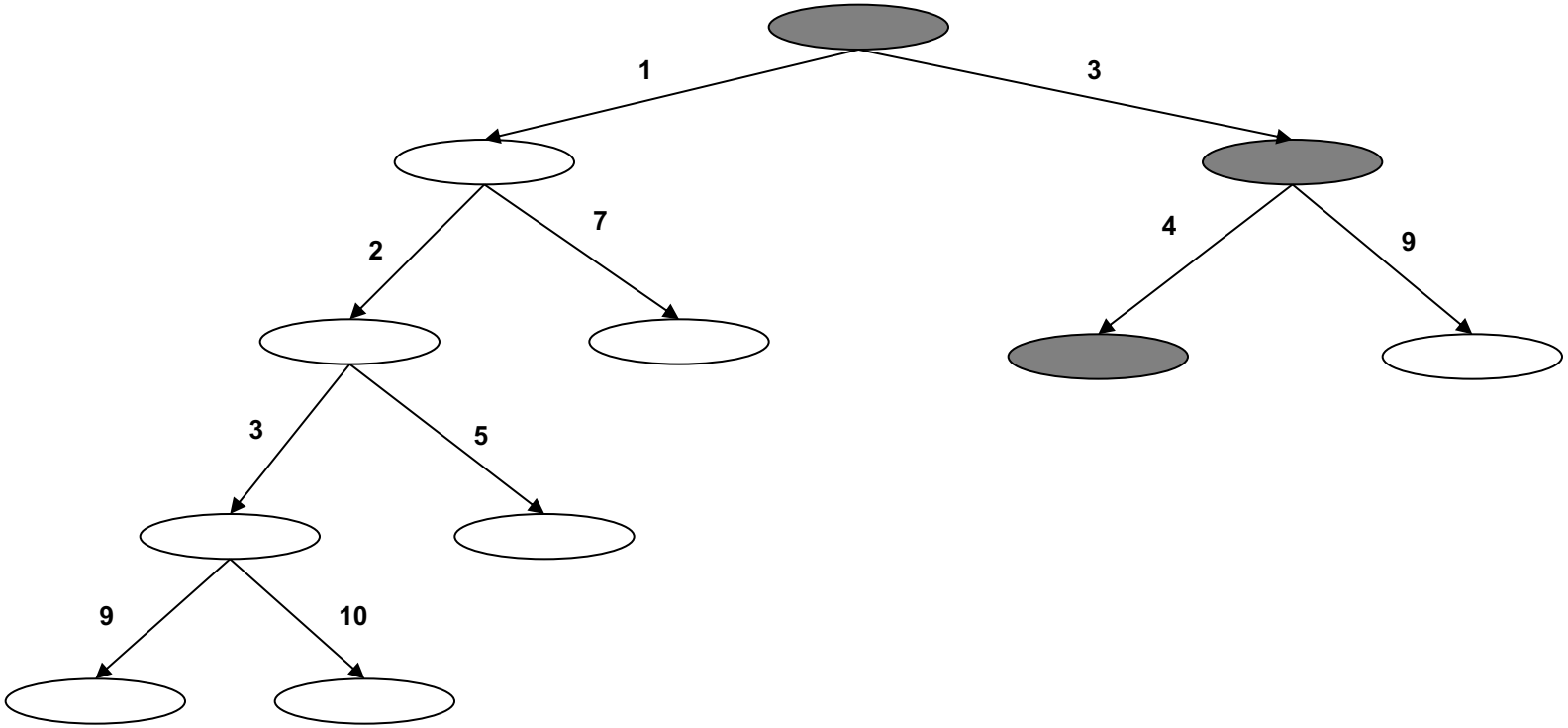

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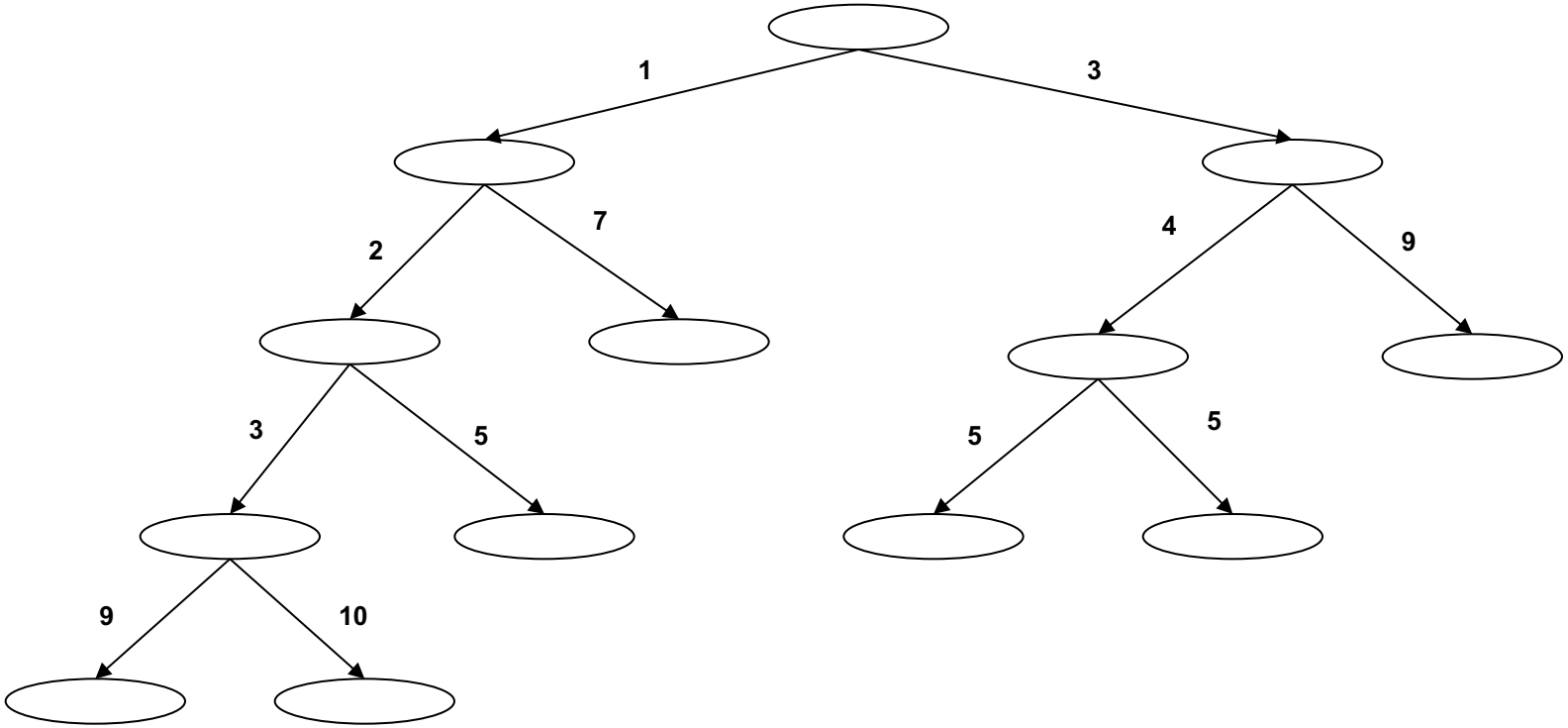

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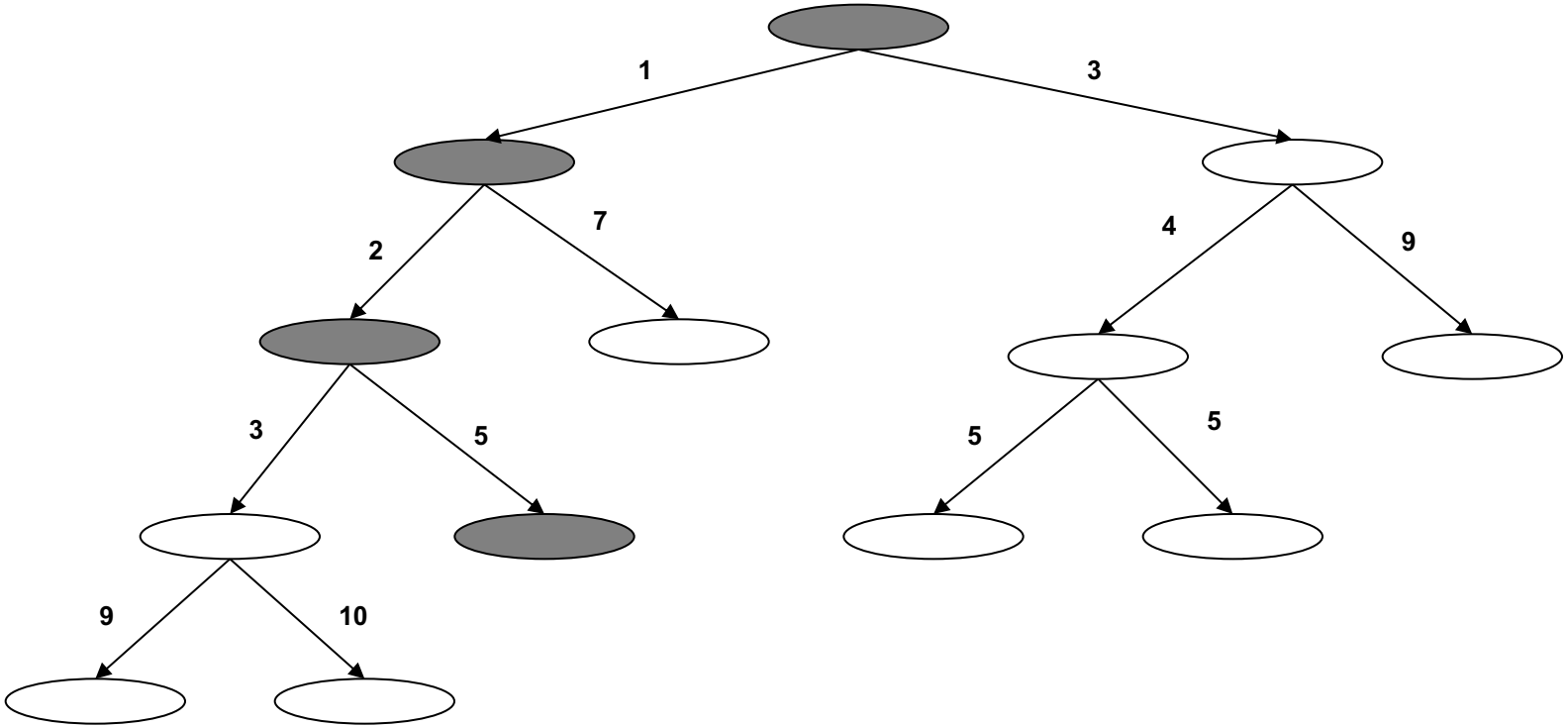

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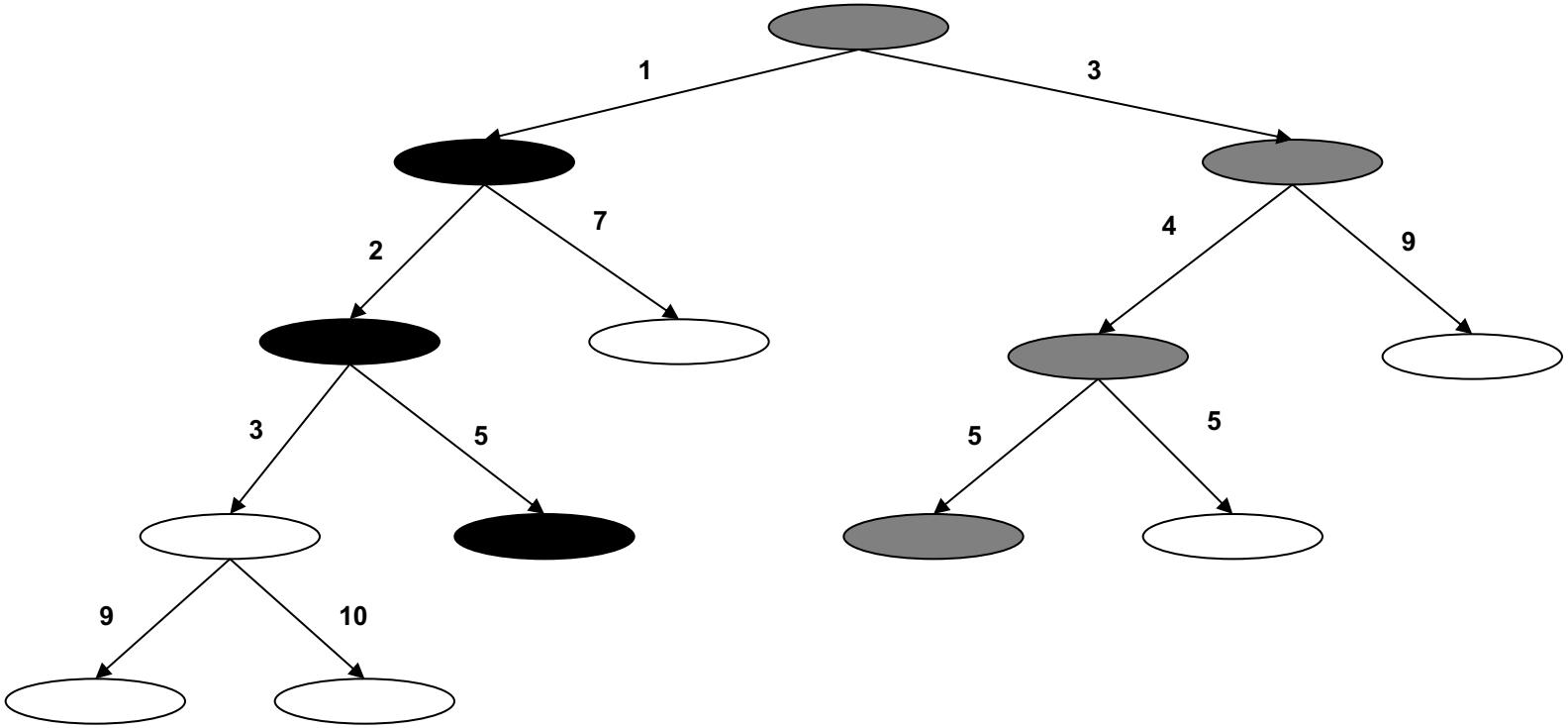

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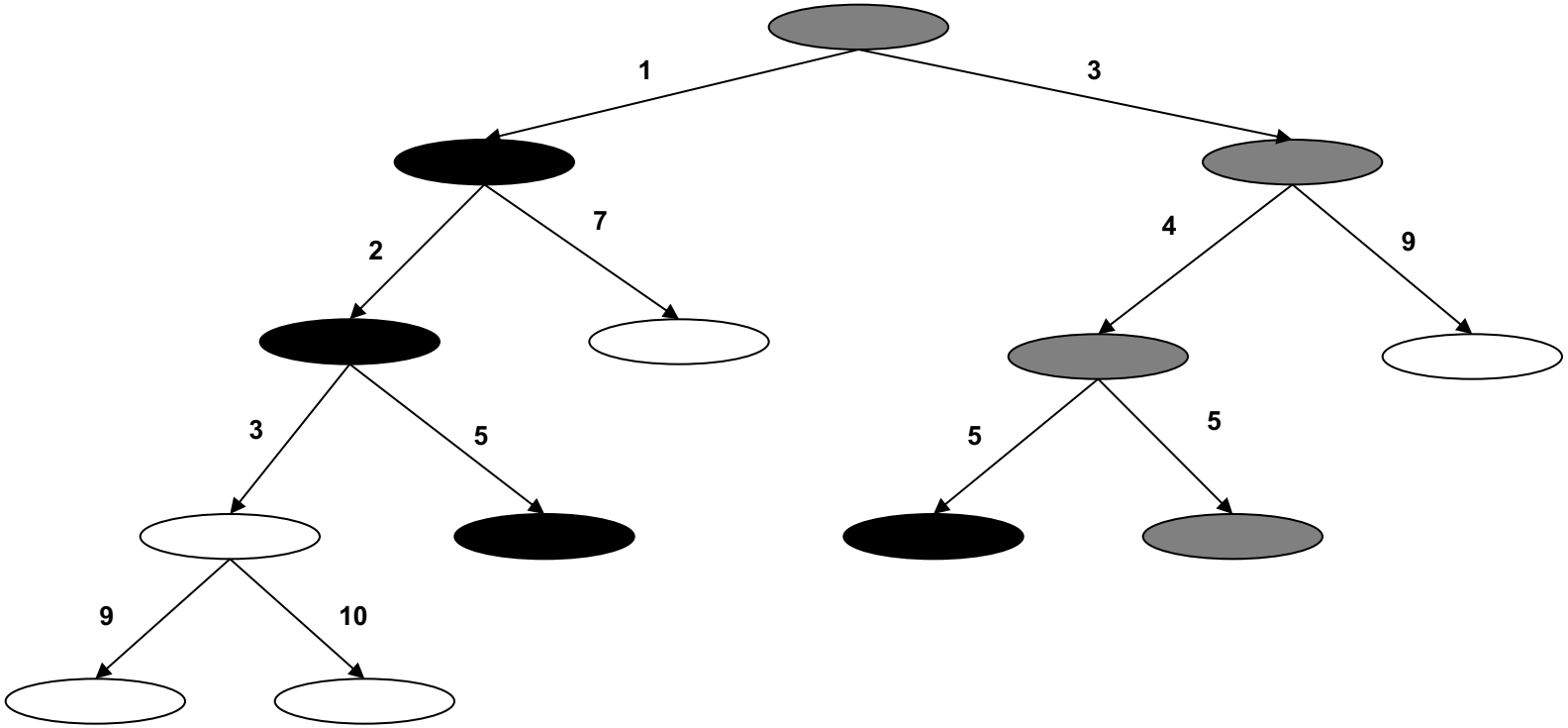
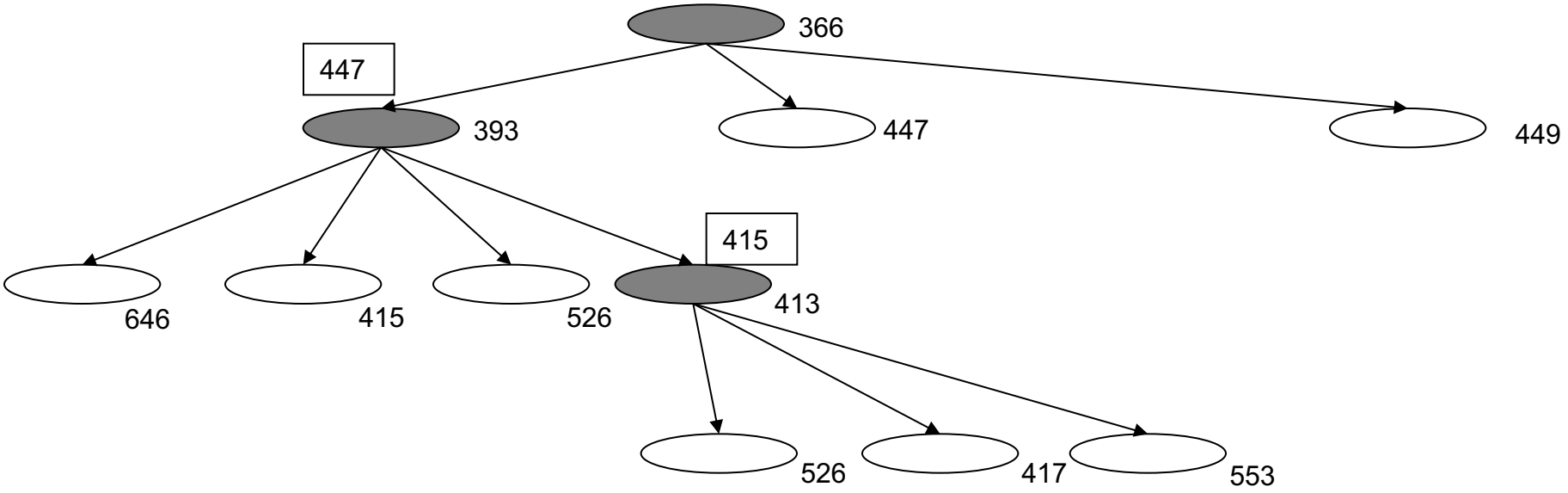


Search Heuristics with limited memory

Recursive Best-First Search (RBFS)

The f-value of the best alternative path starting from any of the current node's ancestors is tracked



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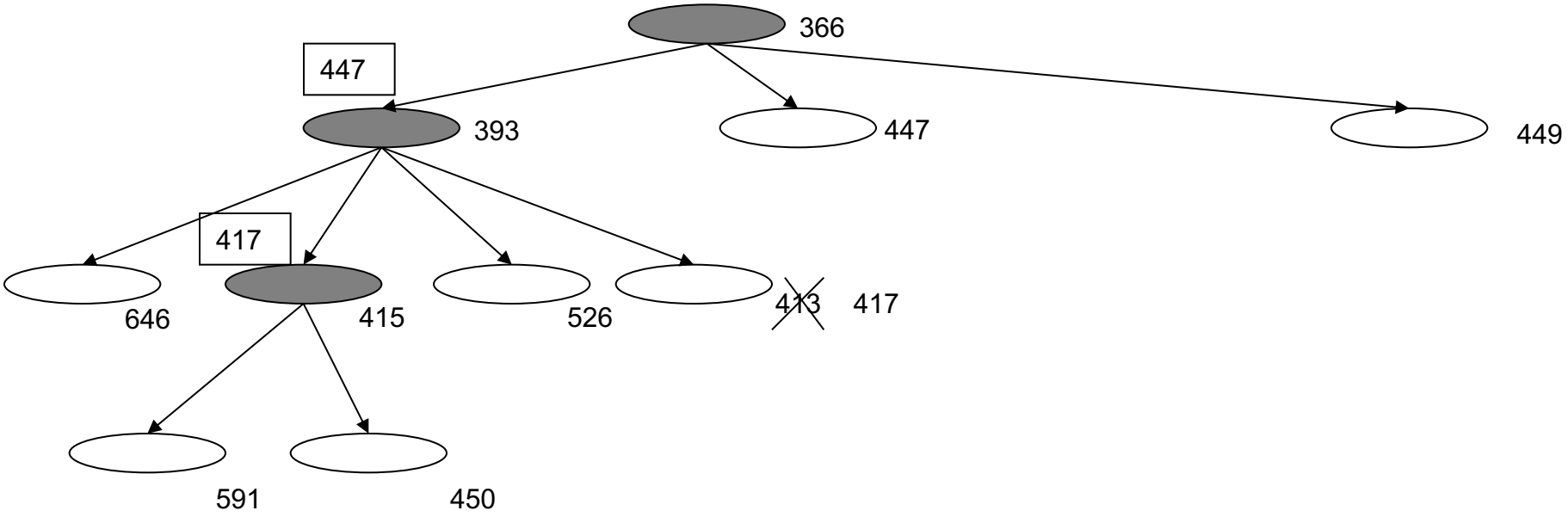

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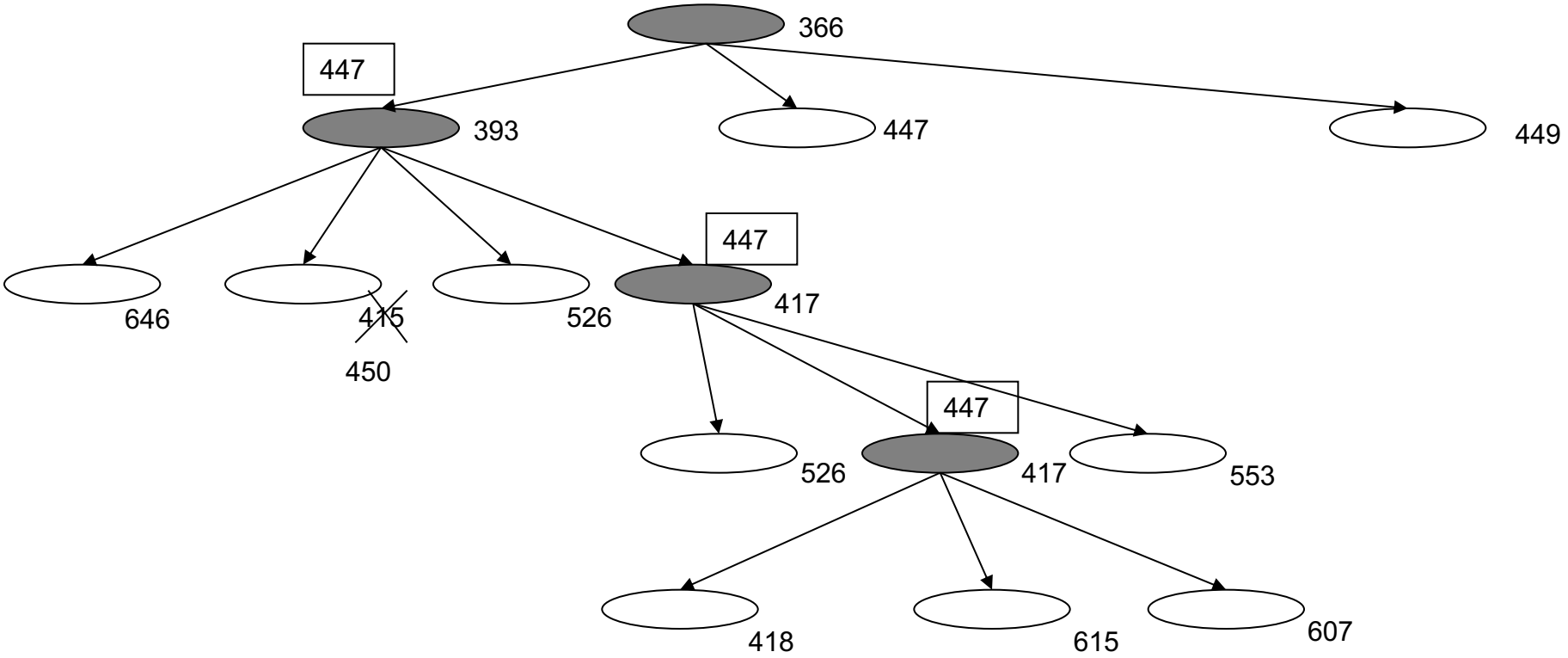

Search Heuristics with limited memory

(simplified) Memory-Bounded A* (SMA*)

It behaves like A* as long as it has memory available. When it runs out of memory, SMA* discards the worst node (smallest f-value) and continues expanding.

In the parent node of the discarded node it retains its value.

When all leaves have the same f-value, SMA* deletes the oldest leaf and expands the youngest.