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1. ALGorithm.
   // PUZZLE

```
algorithm LC SEARCH (listnode *t)
{       // LC → least cost
// search t for answnode
    if ( *t is an answernode )
    {
            print ( *t )
            return;
    }
    E = t;   // E-node

    initialise the list of live node to
    be empty;

    while ( true )
    {
        for each child x of E
        {
            for each th
            if X is an answernode
            {
                print the path from x to t;
                return;
            }
        }
```

```
Add (x); // Add to list of live nodes
    x → parent = E // pointer for path to root

}

If there are no more live nodes
        print ("No answer node");
        return;
}

// Find a live node with least
// estimated cost

    E = Least();

// The found node is deleted from
list of life nodes.

    }
}
```

2. Complexity analysis

Time Complexity = $O(n^2)$

Space Complexity = $O(n^2)$