

July 20, 2018.

685,

1. three cases when the graph has redundant edge. 1) one node has 2 parents. 2) a loop. 3) = 1) + 2). Use Union Find, DFS or BFS

689

1. Use the presum technique to have left and right to current index sum then loop through again to check if the current one is the largest.

312,

1. dfs + memo. or dp hard to understand

```
class Solution {
    public int maxCoins(int[] nums) {
        int[] b = new int[nums.length + 2];
        b[0] = 1;
        b[nums.length + 1] = 1;
        for (int i = 1; i <= nums.length; i++) {
            b[i] = nums[i - 1];
        }

        int[][] memo = new int[nums.length + 2][nums.length + 2];

        return dfs(memo, b, 0, nums.length + 1);
    }

    int dfs(int[][] memo, int[] b, int left, int right) {
        if (left + 1 == right) {
            return 0;
        }
        if (memo[left][right] > 0) {
```

```

        return memo[left][right];
    }
    int res = 0;
    for (int i = left + 1; i < right; i++) {
        res = Math.max(res, b[left] * b[i] * b[right] + dfs(memo, b, left, i) + dfs(memo, b, i, right));
    }
    memo[left][right] = res;
    return res;
}
}

```

378,

1. Dijkstra

643,

1.

673,

621,587,232,125,580,533