

Part A

two-dimensional array called donations that is size $D * L$

```
TotalDifferentDonations(D, L)
    if D is zero
        then return one

    else if donations[D, L] exists
        return donations[D, L]

    different is 0
    j is L

    while j greater than 0
        increment different by TotalDifferentDonations(D, L)
        decrement j

    donations[D,j] is different

    return donation[D, different]
```

This solution should run in $O(D * L)$ because it is only dependent upon traversal of the two-dimensional array `donations`, which is size $D * L$.