

1575 Count all possible routes

let curr = be the index we are currently
at

memo = { }

def routes (curr, finish, fuel) :

if fuel < 0:

return 0

if (curr, fuel) in memo:

return memo[(curr, fuel)]

ans = 0

if curr == finish

ans += 1

else:

for x in range(len(locations)) {
if $x \neq \text{curr}$ {

ans = routes(x , finish, fuel - abs(loc[x] - loc[curr]))

}
}

memo[curr, fuel] = ans

return memo[curr, fuel]

Time Complexity

$$O(n * \text{fuel})$$

pseudopolynomial

Not efficient

