

Problem – 2 Coin Change 2

```
def coin_change_ways(coins, target):
```

```
    dp = [0] * (target + 1)
```

```
    dp[0] = 1
```

```
    for coin in coins:
```

```
        for i in range(coin, target + 1):
```

```
            dp[i] += dp[i - coin]
```

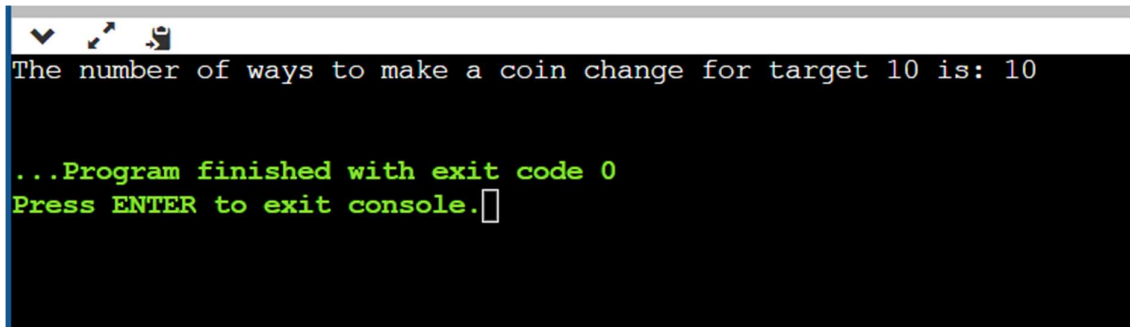
```
    return dp[target]
```

```
coins = [1, 2, 5]
```

```
target = 10
```

```
ways = coin_change_ways(coins, target)
```

```
print(f"The number of ways to make a coin change for target {target} is: {ways}")
```

A screenshot of a terminal window with a dark background. The top bar shows standard window controls (minimize, maximize, close) and a terminal icon. The main area displays the output of the program: "The number of ways to make a coin change for target 10 is: 10" in a light blue monospace font. Below this, in a green monospace font, it says "...Program finished with exit code 0" and "Press ENTER to exit console." followed by a small white cursor icon.

```
The number of ways to make a coin change for target 10 is: 10

...Program finished with exit code 0
Press ENTER to exit console.
```