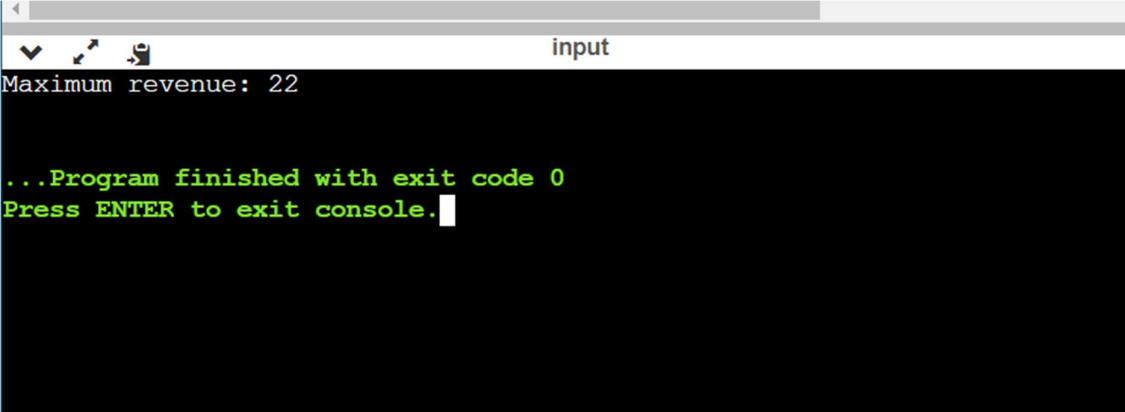


Problem – 4 Rod Cutting Problem

```
def rod_cutting(lengths, prices, N):  
    dp = [0] * (N + 1)  
    for i in range(1, N + 1):  
        max_revenue = 0  
        for j in range(i):  
            max_revenue = max(max_revenue, prices[j] + dp[i - j - 1])  
        dp[i] = max_revenue  
  
    return dp[N]  
  
lengths = [1, 2, 3, 4, 5, 6, 7, 8]  
prices = [1, 5, 8, 9, 10, 17, 17, 20]  
N = 8  
max_revenue = rod_cutting(lengths, prices, N)  
print("Maximum revenue:", max_revenue)
```



The screenshot shows a terminal window with a title bar that includes a maximize button, a close button, and the text "input". The terminal output displays "Maximum revenue: 22" in white text on a black background. Below this, green text indicates "...Program finished with exit code 0" and "Press ENTER to exit console." with a white cursor at the end of the line.