ID: Name:

1. Rod cutting problem: Suppose each cut costs 2 dollars and the price of a rod of length ℓ is p_ℓ.

ℓ	1	2	3	4	5	6	7	8	9	10
p_ℓ	2	4	4	5	5	7	9	9	9	10

   What is the maximum net profit to buy a rod of length 10 for 10 dollars?

2. Matrix-chain multiplication: Solve the instance $(5, \langle 5, 2, 4, 7, 3, 6 \rangle)$

3. Find all longest common subsequences of $\langle$`O,K,I,N,A,W,A`$\rangle$ and $\langle$`O,K,A,Y,A,M,A`$\rangle$.

4. Compute the longest non-decreasing subsequence of $\langle 0, 9, 8, 2, 9, 8, 7, 9, 8, 7 \rangle$.