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COS 350 Spring 2019 Class Exercise 1 5 questions; 2 pgs. 2019-01-22
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1. List the members of your group below. Underline your name.
2. For the following mapping of rod lengths to prices, trace the execution of a recursive cut-rod algorithm for a rod of length 12 .

| length | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| price | 3 | 4 | 9 | 11 | 14 | 17 | 19 | 24 | 28 | 29 | 32 | 36 | 37 | 41 | 44 |

3. Repeat Question 2 for the memoized cut-rod algorithm (top-down).
4. Repeat Question 2 for the bottom-up cut-rod algorithm.
5. (informal homework) Implement all three versions of the cut-rod algorithm and conduct a brief experimental study of their performance. Discuss your results on the class newsgroup.
