Find the exact optimal solution to the 0/1 Knapsack using the dynamic programming method in the Sahni [1] handout for the example values from class. You must also list the items to be placed in the knapsack for the optimal value. (HINT: Notice anything about all the weights and capacity that could help you cut down the number of columns?)

\[
\begin{array}{c|c|c|c}
\text{c} & 30 & n = 3 \\
\hline
\text{p}_i & 40 & 25 & 25 \\
\text{w}_i & 20 & 15 & 15 \\
\end{array}
\]

Project 2: You might think about using this as a test case for your Project 2 work. You know what the optimal solution will be, so you could test all of your methods (brute force, greedy, and dynamic programming) to insure your code produces the correct answers.

References