HW 2

1.

Project	Expected NPV (in $000s)	Year 1	Year 2	Year 3	Year 4	Year 5
1	$141	$75	$25	$20	$15	$10
2	$187	$90	$35	$0	$0	$30
3	$121	$60	$15	$15	$15	$15
4	$83	$30	$20	$10	$5	$5
5	$265	$100	$25	$20	$20	$20
6	$127	$50	$20	$10	$30	$40

The company currently has $250,000 available to invest in new projects. It has budgeted $75,000 for continued support for these projects in year 2 and $50,000 per year for years 3, 4, and 5. If the investment amount is less than 250,000, this amount will be added into the next year's support budget. Since projects 2 and 3 are contradictory projects, both cannot be in the portfolio at the same time. But 2 and 4 are complementary projects, and if one exists, the other should also be in the portfolio. Which projects should be selected to maximize the total NPV (Use Python or Excel Solver)