

Exercise 7.8

Question

7.8. Cheryl Consultant

Cheryl Consultant has an opportunity to invest in one or more of four proposal writing projects A, B, C, or D. Any investment in a project must be made in \$1000 increments. Moreover, there are limits to the amounts Cheryl might invest effectively in any one project: \$7000 for A; \$5000 for B and D; and \$6000 for C. Cheryl is also willing not to invest at all in a project if her money might be invested more profitably in the other projects. Cheryl estimates her returns for investments as follows:

Project	Level of investment (in \$1000)						
	1	2	3	4	5	6	7
A	5	10	15	25	35	50	55
B	3	6	12	18	30	30	30
C	20	35	45	55	60	65	65
D	9	16	29	37	45	45	45

- If Cheryl has \$8000, what is her optimal strategy?
- What will her returns from this strategy be?
- Suppose Cheryl's friend Jill offers her an extra \$1000 if Cheryl agrees to repay Jill \$3000. Should Cheryl accept the offer? Explain your answer.
- If Cheryl only has \$7000, how should her investment plan change?

Solution from Manual

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- He should invest \$4000 in D and \$4000 in C.
- \$92,000
- He should take the offer. He can increase gains by \$8000 by spending \$3000.
- \$4000 in C and \$3000 in D.