

Capital Budgeting In-Class

Student: _____

1. Belling Inc. has provided the following data concerning a proposed investment project:

Initial investment.....	\$168,000
Annual cash receipts.....	\$126,000
Life of the project.....	9 years
Annual cash expenses.....	\$50,000
Salvage value.....	\$8,000

The company's tax rate is 30%. For tax purposes, the entire initial investment without any reduction for salvage value will be depreciated over 7 years. The company uses a discount rate of 14%.

Required:

Compute the net present value of the project.

2. (Ignore income taxes in this problem.) Choudhury Corporation is considering the following three investment projects:

	Project H	Project I	Project J
Investment required.....	\$11,000	\$53,000	\$89,000
Present value of cash inflows.....	\$12,980	\$61,480	\$96,120

Required:

Rank the investment projects using the project profitability index. Show your work

Capital Budgeting InClass **Key**

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Annual cash receipts.....	\$126,000
Annual cash expenses.....	<u>50,000</u>
Annual net cash receipts.....	<u>\$ 76,000</u>

Initial investment (a)	\$168,000
Tax life (b).....	7 years
Annual depreciation deduction (a) ÷ (b)	\$24,000

	Year(s)	Amount	Tax Effect	After-Tax Cash Flows
Initial investment.....	Now	(\$168,000)		(\$168,000)
Annual net cash receipts.....	1-9	\$76,000	0.70	\$53,200
Salvage value.....	9	\$8,000	0.70	\$5,600
Annual depreciation deductions....	1-7	\$24,000	0.30	\$7,200

	After-Tax Cash Flows	14% Factor	PV
Initial investment.....	(\$168,000)	1.000	(\$168,000)
Annual net cash receipts.....	\$53,200	4.946	263,127
Salvage value.....	\$5,600	0.308	1,725
Annual depreciation deductions....	\$7,200	4.288	<u>30,874</u>
Net present value			<u>\$127,726</u>

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Required:

Rank the investment projects using the project profitability index. Show your work

	Project H	Project I	Project J
Investment required (a)	(\$11,000)	(\$53,000)	(\$89,000)
Present value of cash inflows	<u>12,980</u>	<u>61,480</u>	<u>96,120</u>
Net present value (b)	<u>\$ 1,980</u>	<u>\$ 8,480</u>	<u>\$ 7,120</u>
Project profitability index (b) ÷ (a)	0.18	0.16	0.08
Ranked by project profitability index...	1	2	3