EXERCISES SECTION 5

1. Redmond Company is considering investing in one of the following two projects:

	Annual Cash Inflows	
Year	Project A	Project B
1	$ 2,000	$ 4,000
2	3,000	2,000
3	3,000	2,000
4	1,000	1,000
Total	$ 9,000	$ 9,000

Required:

1) Which project is more desirable strictly in terms of cash inflows? Why?
2) Compute the present value of each project's cash inflows assuming the company's required rate of return is 12%.
3) What is the maximum amount Redmond should be willing to pay for each project?
4) Suppose each project costs $7,000. Which project(s) should be accepted? Note that only one project can be accepted.

2. Chichester Company is considering investing in the following two mutually exclusive projects:

	Annual Cash Inflows	
Year	Project A	Project B
1	$ 5,000	$ 3,500
2	4,000	3,500
3	3,000	3,500
4	2,000	3,500
Total	$ 14,000	$ 14,000

Required:

1) Which project is more desirable strictly in terms of cash inflows? Why?
2) Compute the present value of each project's cash inflows assuming the company's required rate of return is 10%.
3) What is the maximum amount Chichester should be willing to pay for each project?
4) Suppose each project costs $10,000. Which project(s) should be accepted?

3. Neighbors Company is considering the purchase of new equipment that will cost $130,000. The equipment will save the company $38,000 per year in cash operating costs. The equipment has an estimated useful life of five years and a zero expected salvage value. The company's cost of capital is 10%.

Required:

1) Ignoring income taxes, compute the net present value and internal rate of return. Round net present value to the nearest dollar and round internal rate of return to the nearest whole percent.
2) Should the equipment be purchased? Why or why not?

4. Pierce Company is considering the purchase of new equipment that will cost $150,000. The equipment will save the company $48,000 per year in cash operating costs. The equipment has an estimated useful life of five years and no expected salvage value. The company's cost of capital is 12%.

Required:

1) Assuming the company is subject to a 40% tax rate, compute the net present value.
2) Compute the amount of the annual depreciation tax shield provided by the new equipment.
3) Should the equipment be purchased? Why or why not?

5. Montana Company is evaluating two different capital investments, Project X and Y. Either X or Y would cost $210,000, and the company cannot afford to do both. The company expects that Project X would provide net cash inflows of $62,000 per year for 5 years. For Project Y, the net cash inflows are expected to be as follows:

Year	Cash inflows from Project Y
1	$ 44,000
2	48,000
3	60,000
4	76,000
5	80,000
Total	$ 308,000

Montana's cost of capital is 12%.

Required:

1) Calculate the present value index for Project X and for Project Y. Round your answer to three decimal places.
2) Indicate whether each of the projects is an acceptable investment.
3) Based on present value index, which of the two projects should Montana implement?