

## Chapter 8 - Homework Questions

**1. Calculating Payback.** What is the payback period for the following set of cash flows?

| Year | Cash Flow |
|------|-----------|
| 0    | -\$6,700  |
| 1    | 2,800     |
| 2    | 3,200     |
| 3    | 2,200     |
| 4    | 1,400     |

**5. Calculating IRR.** A firm evaluates all of its projects by applying the IRR rule. If the required return is 11 percent, should the firm accept the following project?

| Year | Cash Flow  |
|------|------------|
| 0    | -\$168,500 |
| 1    | 86,000     |
| 2    | 91,000     |
| 3    | 53,000     |

**6. Calculating NPV.** For the cash flows in the previous problem, suppose the firm uses the NPV decision rule. At a required return of 9 percent, should the firm accept this project? What if the required return was 21 percent?

**8. Calculating IRR.** What is the IRR of the following set of cash flows?

| Year | Cash Flow |
|------|-----------|
| 0    | -\$19,400 |
| 1    | 9,800     |
| 2    | 11,300    |
| 3    | 6,900     |

**13. Calculating Profitability Index.** What is the profitability index for the following set of cash flows if the relevant discount rate is 10 percent? What if the discount rate is 15 percent? If it is 22 percent?

| Year | Cash Flow |
|------|-----------|
| 0    | -\$27,500 |
| 1    | 15,800    |
| 2    | 13,600    |
| 3    | 8,300     |