1. A plant has an installation cost of $17Million, which will be depreciated straight line to zero over its 4 year life. If the plant has projected net income of $1,735,000, $2,105,000, $1,954,000 and $1,286,000 over these four years, what is the project's average accounting return?

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. A firm evaluates all of its projects by applying the IRR rule. If the required return is 13%, should the firm accept the   Following project?: | | | | | | | | | | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| Year |  | Cash Flow |  |  |  |  |  |  |  |  |  |  |
| 0 |  | -145,000 |  |  |  |  |  |  |  |  |  |  |
| 1 |  | 71,000 |  |  |  |  |  |  |  |  |  |  |
| 2 |  | 68,000 |  |  |  |  |  |  |  |  |  |  |
| 3 |  | 52,000 |  |  |  |  |  |  |  |  |  |  |

1. For the cash flow above, suppose the firm uses the NPV decision rule. At a required return of 10%, should the firm accept the project? What is the required return was 21%?
2. A project that provides annual cash flows of $2,150 for 9 years costs$8,900 today. Is this a good project if the required return is 8%? What if its 24%? At what discount rate would you be indifferent between accepting the project and rejecting it?
3. What is the IRR of the following set of cashflows?

|  |  |  |
| --- | --- | --- |
| Year |  | Cash Flow |
| 0 |  | -32,000 |
| 1 |  | 13,200 |
| 2 |  | 18,500 |
| 3 |  | 10,600 |

1. Consider the following two mutually exclusive projects:

|  |  |  |  |
| --- | --- | --- | --- |
| Year |  | Cash Flow A | Cash flow B |
| 0 |  | -415,000 | -35,000 |
| 1 |  | 49,000 | 19,400 |
| 2 |  | 57,000 | 14,300 |
| 3 |  | 74,000 | 13,600 |
| 4 |  | 530,000 | 10,400 |
|  |  |  |  |
|  |  |  |  |

1. If you apply the payback criterion, which investment would you choose, Why?
2. If you apply the NPV criterion, which investment would you choose, why?
3. If you apply the IRR criterion, which investment would you choose, why?
4. If you apply the profitability index criterion, which investment and why?
5. Which investment is best overall? Why?