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| --- |
| Consider the following projects: |

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| --- | --- | --- | --- | --- | --- | --- |
|  | Cash Flows, $ | | | | | |
| Project | *C*0 | *C*1 | *C*2 | *C*3 | *C*4 | *C*5 |
| A | –1,200 | +1,200 | 0 | 0 | 0 | 0 |
| B | –2,400 | +1,200 | +1,200 | +4,200 | +1,200 | +1,200 |
| C | –3,000 | +1,200 | +1,200 | 0 | +1,200 | +1,200 |
|  | | | | | | |

|  |  |
| --- | --- |
| **a-1.** | If the opportunity cost of capital is 12%, what is the NPV for each project? **(Negative amounts should be indicated by a minus sign. Do not round intermediate calculations. Round your answers to 2 decimal places.)** |

|  |  |
| --- | --- |
| Project | NPV |
| A | $ |
| B | $ |
| C | $ |
|  | |

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| --- | --- |
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| **b.** | Calculate the payback period for each project. **(Do not round intermediate calculations. Round your answer to 2 decimal places.)** |

|  |  |
| --- | --- |
| Project | Payback Period |
| A | year(s) |
| B | year(s) |
| C | year(s) |
|  | |

|  |  |  |
| --- | --- | --- |
|  |  | |
|  |  | |
|  |  | |
| **d.** | | Calculate the discounted payback period for each project. **(Enter 0 if the payback period cannot be calculated. Do not round intermediate calculations. Round your answers to 2 decimal places.)** |

|  |  |
| --- | --- |
| Project | Discounted   Payback Period |
| A | year(s) |
| B | year(s) |
| C | year(s) |
|  | |

|  |  |
| --- | --- |
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| You have the chance to participate in a project that produces the following cash flows: | |

|  |  |  |
| --- | --- | --- |
| Cash Flows, $ | | |
| *C*0 | *C*1 | *C*2 |
| +5,000 | +4,000 | –11,000 |
|  | | |

|  |  |
| --- | --- |
| **a.** | The internal rate of return is 13%. If the opportunity cost of capital is 10%, what is the NPV of the project? **(Negative amount should be indicated by a minus sign. Do not round intermediate calculations. Round your answer to 2 decimal places.)** |

|  |  |
| --- | --- |
| NPV | $ |

|  |
| --- |
| Machines A and B are mutually exclusive and are expected to produce the following real cash flows: |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Cash Flows ($ thousands) | | | | |
| Machine | *C0* | *C1* | *C2* | *C3* |
| A | –109 | +119 | +130 |  |
| B | –129 | +119 | +130 | +142 |
|  | | | | |

|  |
| --- |
| The real opportunity cost of capital is 8%. (Use PV table.) |

|  |  |
| --- | --- |
| **a.** | Calculate the NPV of each machine. **(Do not round intermediate calculations.** **Enter your answers in thousand rounded to the nearest whole number.)** |

|  |  |
| --- | --- |
| Machine | NPV |
| A | $ |
| B | $ |
|  | |

|  |  |
| --- | --- |
| **b.** | Calculate the equivalent annual cash flow from each machine. **(Do not round intermediate calculations. Round "PV Factor" to 3 decimal places. Enter your answers in thousand rounded to the nearest whole number.)** |

|  |  |
| --- | --- |
| Machine | Cash flow |
| A | $ |
| B | $ |