# PROBLEM 1

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| The Heritage Amusement Park would like to construct a new ride called the Sonic Boom, which the park management feels would be very popular. The ride would cost $450,000 to construct, and it would have a 10% salvage value at the end of its 15-year useful life. The company estimates that the following annual costs and revenues would be associated with the ride: (Ignore income taxes.) |

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|   Ticket revenues |   |   |   | $ | 250,000 |   |
|   Less operating expenses: |   |   |   |   |   |   |
|      Maintenance | $ | 40,000 |   |   |   |   |
|      Salaries |   | 90,000 |   |   |   |   |
|      Depreciation |   | 27,000 |   |   |   |   |
|      Insurance |   | 30,000 |   |   |  |   |
|   |  |  |  |   |   |   |
|   Total operating expenses |   |   |   |   | 187,000 |   |
|   |   |   |   |  |  |  |
|   Net operating income |   |   |   | $ | 63,000 |   |
|   |   |   |   |  |  |  |
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| Compute the pay back period associated with the new ride.  |

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|   Payback period | years   |

**I computed 4.5 years which was wrong. How did you calculate? Should it be rounded to 5 years?**

# PROBLEM 2

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| Sharp Company has $15,000 to invest. The company is trying to decide between two alternative uses of the funds as follows: |

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|   | Invest inProject A | Invest inProject B |
|   Investment required | $ | 15,000    | $ | 15,000   |
|   Annual cash inflows | $ | 4,000    | $ | 0   |
|   Single cash inflow at the end of 10 years |   |   | $ | 60,000   |
|   Life of the project | 10 years   | 10 years   |
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| Sharp Company uses a 16% discount rate. (Ignore income taxes.) |
| **Required:** |

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| **a.** | Determine the net present value. **(Negative amounts should be indicated by a minus sign. Round discount factor(s) to 3 decimal places, other intermediate calculations and final answers to the nearest whole dollar.)** |

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|   | Net Present Value |
|   Project A | $    |
|   Project B | $    |
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**What I have for project A is correct. I calculated -1206 for project B and that was wrong.**

# PROBLEM 3

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| Wriston Company has $300,000 to invest. The company is trying to decide between two alternative uses of the funds. The alternatives are as follows: |

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|   | A | B |
|   Cost of equipment required | $ | 300,000      | $ | 0      |
|   Working capital investment required | $ | 0      | $ | 300,000      |
|   Annual cash inflows | $ | 80,000      | $ | 60,000      |
|   Salvage value of equipment in seven years | $ | 20,000      | $ | 0      |
|   Life of the project |   | 7 years      |   | 7 years      |
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| The working capital needed for project B will be released for investment elsewhere at the end of seven years. Wriston Company uses a 20% discount rate. (Ignore income taxes.) |

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| **Required:** |

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| **a.** | Calculate net present value for each project. **(Negative amounts should be indicated by a minus sign. Leave no cells blank - be certain to enter "0" wherever required. Round discount factor(s) to 3 decimal places, other intermediate calculations and final answers to the nearest whole dollar.)** |

|  |  |
| --- | --- |
|   | Net Present Value |
|   Project A | $    |
|   Project B | $   |

**I am lost on this one. Both of my answers above are wrong. I applied the cash inflows against the outflows (both cases it was -300,000) and my above answers are incorrect. Additionally, on project A, I discounted the cash-flow of 20K in the 7th year.**

# PROBLEM 4

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| On January 2, Fred Critchfield paid $18,000 for 900 shares of the common stock of Acme Company. Mr. Critchfield received an $0.80 per share dividend on the stock at the end of each year for four years. At the end of four years, he sold the stock for $22,500. Mr. Critchfield has a goal of earning a minimum return of 12% on all of his investments. (Ignore income taxes.) |
| **Required:** |

|  |  |
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| **a.** | Determine the net present value. **(Negative amount should be indicated by a minus sign.Round discount factor(s) to 3 decimal places, other intermediate calculations and final answer to the nearest whole dollar.)** |

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| --- | --- |
|   Net present value | $   |

**This answer is also wrong. But then again, what is the discount rate? Do I also discount the $22,500 at the end of four years? Help!?**