|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 37. | (Ignore income taxes in this problem.) Harrison Corporation is studying a project that would have an eight-year life and would require a $300,000 investment in equipment which has no salvage value. The project would provide net operating income each year as follows for the life of the project:      The company's required rate of return is 10%. The payback period for this project is closest to:      |  |  | | --- | --- | | A. | 3 years |  |  |  | | --- | --- | | **B.** | 2 years |  |  |  | | --- | --- | | C. | 2.5 years |  |  |  | | --- | --- | | D. | 2.67 years |   Payback period = Investment required ÷ Annual net cash inflow = $300,000 ÷ $150,000 per year = 2 years   |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 38. | (Ignore income taxes in this problem.) Buy-Rite Pharmacy has purchased a small auto for delivering prescriptions. The auto was purchased for $28,000 and will have a 6-year useful life and a $4,000 salvage value. Delivering prescriptions (which the pharmacy has never done before) should increase gross revenues by at least $32,000 per year. The cost of these prescriptions to the pharmacy will be about $25,000 per year. The pharmacy depreciates all assets using the straight-line method. The payback period for the auto is closest to:      |  |  | | --- | --- | | **A.** | 4 years |  |  |  | | --- | --- | | B. | 1.8 years |  |  |  | | --- | --- | | C. | 2 years |  |  |  | | --- | --- | | D. | 1.2 years |   Annual net cash inflow = $32,000 - $25,000 = $7,000 Payback period = Investment required ÷ Annual net cash inflow = $28,000 ÷ $7,000 per year = 4 years | |
| 41. | (Ignore income taxes in this problem.) The management of Helberg Corporation is considering a project that would require an investment of $203,000 and would last for 6 years. The annual net operating income from the project would be $103,000, which includes depreciation of $30,000. The scrap value of the project's assets at the end of the project would be $23,000. The cash inflows occur evenly throughout the year. The payback period of the project is closest to:      |  |  | | --- | --- | | **A.** | 1.5 years |  |  |  | | --- | --- | | B. | 2.0 years |  |  |  | | --- | --- | | C. | 1.4 years |  |  |  | | --- | --- | | D. | 1.7 years |   Payback period = Investment required ÷ Annual net cash inflow = $203,000 ÷ $133,000 per year = 1.5 years |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 42. | (Ignore income taxes in this problem.) Neighbors Corporation is considering a project that would require an investment of $279,000 and would last for 8 years. The incremental annual revenues and expenses generated by the project during those 8 years would be as follows:      The scrap value of the project's assets at the end of the project would be $15,000. The cash inflows occur evenly throughout the year. The payback period of the project is closest to:      |  |  | | --- | --- | | **A.** | 2.0 years |  |  |  | | --- | --- | | B. | 2.6 years |  |  |  | | --- | --- | | C. | 2.5 years |  |  |  | | --- | --- | | D. | 1.9 years |   Payback period = Investment required ÷ Annual net cash inflow = $279,000 ÷ $139,000 per year = 2.0 years   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 45. | Fimbrez Corporation has provided the following data concerning an investment project that it is considering:      The net present value of the project is closest to:      |  |  | | --- | --- | | A. | $358,484 |  |  |  | | --- | --- | | B. | $360,000 |  |  |  | | --- | --- | | **C.** | $(1,516) |  |  |  | | --- | --- | | D. | $112,000 |      |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | 46. | (Ignore income taxes in this problem.) Beaver Corporation is investigating the purchase of a new threading machine that costs $18,000. The machine would save about $4,000 per year over the present method of threading component parts, and would have a salvage value of about $3,000 in 6 years when the machine would be replaced. The company's required rate of return is 12%. The machine's net present value is closest to:      |  |  | | --- | --- | | A. | $1,556 |  |  |  | | --- | --- | | **B.** | $(35) |  |  |  | | --- | --- | | C. | $11,000 |  |  |  | | --- | --- | | D. | $8,000 | | | | | 47. | | (Ignore income taxes in this problem.) Frick Road Paving Corporation is considering an investment in a curb-forming machine. The machine will cost $180,000, will last 10 years, and will have a $30,000 salvage value at the end of 10 years. The machine is expected to generate net cash inflows of $40,000 per year in each of the 10 years. Frick's discount rate is 10%. The net present value of the proposed investment is closest to:      |  |  | | --- | --- | | A. | $250,000 |  |  |  | | --- | --- | | B. | $65,800 |  |  |  | | --- | --- | | C. | $245,800 |  |  |  | | --- | --- | | **D.** | $77,380 | | | | 53. | | (Ignore income taxes in this problem.) The following data on a proposed investment project have been provided:      The working capital would be released for use elsewhere at the end of the project. The net present value of the project is closest to:      |  |  | | --- | --- | | **A.** | $3,730 |  |  |  | | --- | --- | | B. | $0 |  |  |  | | --- | --- | | C. | $32,450 |  |  |  | | --- | --- | | D. | $88,370 | | | |
| 68. | (Ignore income taxes in this problem.) Galindo Long-Haul, Inc., is considering the purchase of a tractor-trailer that would cost $178,848, would have a useful life of 8 years, and would have no salvage value. The tractor-trailer would be used in the company's hauling business, resulting in additional net cash inflows of $36,000 per year. The internal rate of return on the investment in the tractor-trailer is closest to:      |  |  | | --- | --- | | A. | 10% |  |  |  | | --- | --- | | B. | 15% |  |  |  | | --- | --- | | **C.** | 12% |  |  |  | | --- | --- | | D. | 13% |   Factor of the internal rate of return = Investment required ÷ Annual net cash inflow = $178,848 ÷ $36,000 = 4.968 This factor is the present value of an annuity for 8 periods at 12% per period. |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 70. | (Ignore income taxes in this problem) The management of Favreau Corporation is considering the purchase of a machine that would cost $310,464 and would have a useful life of 5 years. The machine would have no salvage value. The machine would reduce labor and other operating costs by $84,000 per year. The internal rate of return on the investment in the new machine is closest to:      |  |  | | --- | --- | | A. | 12% |  |  |  | | --- | --- | | B. | 14% |  |  |  | | --- | --- | | **C.** | 11% |  |  |  | | --- | --- | | D. | 13% |   Factor of the internal rate of return = Investment required ÷ Annual net cash inflow = $310,464 ÷ $84,000 = 3.696 This factor is the present value of an annuity for 5 periods at 11% per period. |