Capital Budgeting

1. Uneven Cash Flows: Find the NPV (Net Present Value) of a project that requires an investment of $400 now; and another expense of $500 at the end of the 1st year. It gives cash inflows of $300 at the end of year 3, $400 at the end of year 4, and $800 at the end of year 5. The required rate of return is 11%. Is the project acceptable? The answer is NPV= $107, YES. I need the calculations, formulas and the work shown to get this answer.
2. Depreciation and Taxes: Atlas Corp needs a new machine that will cost $50,000. Using the straight-line method, Atlas will depreciate it over its useful life of 5 yrs. The machine will add $14,000 annually to the earnings before interest and taxes (EBIT) of Atlas. The WACC of Atlas is 12% and its tax rate is 32%. Should Atlas install the machine? The answer is NPV= -$4147, NO. I need the calculations, formulas’s and work shown to get this answer.
3. After-Tax cash flows: You have the opportunity to invest $10,000 in a project that will generate a pretax return of $4,000 annually for the next 10 yrs. You are in the 28% tax bracket, and your after-tax required rate of return is 15%. Should you make the investment? The answer is NPV= $4454, YES. I need the calculations, formulas’s and work shown to get this answer.
4. Uncertain Life: Mercy Hosp is planning to buy an X-ray machine whose total useful life is 4 yrs. However, there is a 25% chance that it may break down completely after 3 yrs. The machine will save $4,500 annually, and it will cost $11,000. The hospital is a tax-exempt entity, and its proper discount rate is 7%. Should Mercy buy the machine? The answer is NPV= $3,384 YES Buy it. I need the calculations, formulas, and work shown to get this answer.