**zAssignment 1**

Download the Assignment1 spreadsheet from Canvas and review it.

Term definitions:

Discount Rate – Think of this number as the reduced amount of purchasing power your cash will have in the future. For example $100 today buys 10 hamburgers but will only buy one hamburger in 2060 when a hamburger is $85. The higher the number the less purchasing power your future money will have.

ROI (Return on Investment)– a performance measure used to evaluate the efficiency of an investment or compare the efficiency of several investments.

NPV (Net Present Value) – the difference between the present value of cash inflows and the present value of cash outflows over a period of time. NPV is used in budgeting and investment planning to analyze the profitability of a projected investment or project. NPV is the result of calculations used to find today’s value of a future stream of payments.

Instructions

The company you work for wants to buy an expensive intrusion detection system that will protect its network. It is very expensive but provides excellent security defenses. These defenses will save the company money. The system is expected to have a 6 or 7 year lifetime.

The accounting department estimates that the product will cost $110,000 to purchase and it will cost around $33,000 each year to maintain.

The department also calculates that it will produce a $42,000 benefit the first year they have it and then it will produce a benefit of $65,000 each year after that.

Modify the spreadsheet to calculate the return on an investment and identify the payback year based on a discount rate of 10%.

When is the payback year?

**It will be paid back in year 6**

What is the ROI?

**The ROI is 9%**

What is the NPV?

**The NPV is $24,880**

When you are finished upload the spreadsheet and this document into Canvas for your submission.

The provided spreadsheet has some data you can look at as an example.