FIN 470: Financial Analysis in Excel

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Group Excel Assignment 6, Time Value of Money

Remember that for credit all Excel spreadsheets must conform to the Excel Guidelines.

CAUTION: Capital IQ (as well as other web sites) automatically downloads data as a 1997-2003 (xls) format Excel file. Immediately save your file in the current (xlsx) format since some recent Excel features are not available in the earlier format.

NOTE: Unless stated otherwise assume all values are annual.

1. Create a workbook "FIN 470 A6 Group X (Fall22).xlsx".
2. Use the order of problems below on the worksheet, use Ariel 14 font, label each problem with its letter, and indicate the answer to each problem by formatting the answer in **bold, blue font**.
3. On a worksheet labelled "Problems", solve the following:
    A. If you receive $300.00 in 10 years and the discount rate is 15%, what is the present value?
    B. How long would you need to wait for $500.00 to double if the interest rate is 2% compounded quarterly?
    C. If you invest $1,000 per year in a stock portfolio with a return of 8%, how much would you expect to have in 7 years?
    D. If you invest $1,000 per month in a stock portfolio with a monthly return of 1.2%, how much would you expect to have in 7 years?
    E. What are the payments on a $40,000 loan repaid monthly for six years (r = 7% annually)?
    F. Value an annuity of $40 per year for 10 years beginning in 4 years (r = 13%).
    G. What is the financial NPV of the following cash flows: 100, 125, 450, -325 (r = 7% and investment = -300)?
    H. Suppose you make an investment that pays $75,000 in eight years. If the cost is $50,000, what return would you receive compounded quarterly?
    I. Value a perpetuity of $400 per year (r = 14.9%)
    J. Value a perpetuity of $400 per year growing at 2% (r = 14.9%).
    K. What is the value of $250 in 7 years continuously compounded at 5%?

L. A friend boasts that his investment doubled in 4 years. What was his annual return?
M. What is the present value of the following cash flows: 100, 125, 450, -325 (r = 7%)?
N. If, beginning in 3 years, you plan to save $300 annually for 10 years and the rate is 15%, what is the future value?
O. If a perpetuity is worth $1,000 and r = 15.5%, what is the cash flow?