Name / Group: _____

Assignment #3 - DFL, ROE

Task Description:
You are given financial data for Company XYZ. Your task is to calculate the financial capital cost for equity and debt, the Weighted Average Cost of Capital (WACC), and the Degree of Financial Leverage (DFL) based on the provided information.

Financial Data:
Equity: $5,000,000
Debt: $3,000,000
Financial capital [FC]: $8,000,000
Cost of debt [KD]: 6%
Corporate tax rate [CIT]: 19%
Net sales revenue [NSR]: $20,000,000
Operating costs (without financial costs) [OK]: $16,000,000
Interest (p.a.) [I]: $250,000
R_f = 4% [Risk free rate[1]]
R_m = 10% [Portfolio return rate]
β = 1,2% [Beta coefficient[2]]

Formulas:
EBIT = NSR - KO
EBT = EBIT - I
EAT = EBT x CIT
ROE = EAT/E x 100%
DFL = EBIT/EBT
KE = $R_f + \beta(R_m - R_f)$ [Capital Asset Pricing Model (CAPM) formula]
KDT = KD x (1-CIT)
WACC = E/FC x KE + D/FC x KDT

Task Instructions:
1. Calculate EBIT, EBT and EAT.
2. Calculate the cost of equity (KE).
3. Calculate the cost of debt (KDT).
4. Calculate the weighted average cost of capital (WACC).
5. Calculate ROE.
6. Calculate the Degree of Financial Leverage (DFL).
7. Write three sentences of the DFL result interpretation.

[1] The risk-free rate of return is the interest rate an investor can expect to earn on an investment that carries zero risk. In practice, the risk-free rate is commonly considered to be equal to the interest paid on a 10-year highly rated government Treasury note, generally the safest investment an investor can make [see: https://tinyurl.com/y2u56m6j]
[2] The Beta coefficient is a measure of sensitivity or correlation of a security or an investment portfolio to movements in the overall market. We can derive a statistical measure of risk by comparing the returns of an individual security/portfolio to the returns of the overall market and identify the proportion of risk that can be attributed to the market.