

FBLA HS: Financial Math

Competency A: Consumer Credit	MBA Research Performance Indicators	LAPs
Tasks		
1. Identify the costs, benefits, and sources of various types of credit	FI:002 Explain the purposes and importance of credit (CS)	LAP-FI-002 Give Credit Where Credit Is Due (Credit and Its Importance)
2. Calculate sales tax and compute total price with sales tax	SE:475 Calculate miscellaneous charges (CS)	**Just for You! SE:475, Calculate miscellaneous charges
3. Compute total purchase price with interest/finance charges added	FI:782 Calculate the cost of credit (CS)	
4. Compute the costs involved in owning and buying an item such as an automobile, appliances, home, or furniture		
5. Compute finance charges for single payment loans	FI:782 Calculate the cost of credit (CS)	
6. Calculate installment loan costs such as amount financed, installment price, finance charge, and installment payment	FI:782 Calculate the cost of credit (CS)	
7. Find the estimated annual percentage rate (APR) using a table	FI:782 Calculate the cost of credit (CS)	
8. Compare costs of leasing and buying	FI:783 Make responsible financial decisions (CS)	**Just for You! FI:783, Make responsible financial decision
9. Find the finance charge and new balance using the average daily balance method	FI:782 Calculate the cost of credit (CS)	

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10. Read amortization tables to determine payment, interest and balance	FI:782 Calculate the cost of credit (CS)	
11. Compute Annual and monthly Percentage Rate for credit cards or loan	FI:782 Calculate the cost of credit (CS)	
12. Find the monthly mortgage payment	FI:782 Calculate the cost of credit (CS)	
13. Find the total interest on a mortgage and the PITI	FI:782 Calculate the cost of credit (CS)	
14. Prepare a partial amortization schedule of a mortgage		
15. Compare the total interest paid on a 15-year and 30-year fixed rate mortgage	FI:782 Calculate the cost of credit (CS)	
16. Define and compare the interest only, fixed rate, and adjustable rate loans	FI:002 Explain the purposes and importance of credit (CS)	LAP-FI-002 Give Credit Where Credit Is Due (Credit and Its Importance)
Competency B: Data Analysis and Reporting	MBA Research Performance Indicators	LAPs
Tasks		
1. Using a data set, determine mean, median, and mode	NF:093 Interpret statistical findings (SP)	
2. Distinguish between a simple average and a weighted average and calculate each	FI:646 Use the time value of money to make business decisions (e.g., projects, investments, etc.) (SP) NF:093 Interpret statistical findings (SP)	
3. Identify and construct various types of graphs and charts	IM:347 Display data in charts/graphs or in tables (SP)	
4. Compile and arrange facts in organized manner for a table, chart, or figure	IM:347 Display data in charts/graphs or in tables (SP)	

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5. Explain or prepare written summary of findings expressed in tables, charts, graphs and figures	NF:093 Interpret statistical findings (SP) NF:216 Translate research findings into actionable business recommendations (SP)	
6. Make predictions and decisions based on data and communicate their reasoning	NF:278 Draw conclusions based on information analysis (CS) NF:216 Translate research findings into actionable business recommendations (SP) NF:237 Interpret descriptive statistics for business decision making (SP)	
7. Explain the usage of statistics, probability, and systems of measurement in business	NF:236 Explain the use of descriptive statistics in business decision making (SP)	
Competency C: Interest Rates	MBA Research Performance Indicators	LAPs
Tasks		
1. Figure rates, interest, and proceeds of bank discounts	FI:544 Compute key banking calculations (e.g., interest, annual percentage rate, exchange rates, etc.) (SP)	
2. Calculate simple interest using the simple interest formula	FI:544 Compute key banking calculations (e.g., interest, annual percentage rate, exchange rates, etc.) (SP)	
3. Calculate any single variable—principal, interest rate, amount of interest, or time—given the other three	FI:544 Compute key banking calculations (e.g., interest, annual percentage rate, exchange rates, etc.) (SP)	
4. Explain the process of discounting a promissory note and calculate the proceeds of a discounted promissory note	FI:544 Compute key banking calculations (e.g., interest, annual percentage rate, exchange rates, etc.) (SP)	

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5. Define maturity value and find the maturity value of a loan	FI:544 Compute key banking calculations (e.g., interest, annual percentage rate, exchange rates, etc.) (SP)	
6. Convert months to a fractional or decimal part of a year	FI:238 Calculate the time value of money (SP)	**Just for You! FI:238, Calculate the time value of money
7. Find the future value and compound interest by compounding manually	FI:238 Calculate the time value of money (SP)	**Just for You! FI:238, Calculate the time value of money
8. Find the interest compounded daily using a table	FI:238 Calculate the time value of money (SP)	**Just for You! FI:238, Calculate the time value of money
Competency D: Mark-ups and Discounts	MBA Research Performance Indicators	LAPs
Tasks		
1. Identify the various types of discounts	PI:022 Determine discounts and allowances that can be used to adjust base prices (MN)	
2. Calculate chain, trade, and cash discounts and net selling price of each kind of discount	PI:022 Determine discounts and allowances that can be used to adjust base prices (MN)	
3. Determine price of product after coupons and/or rebates	SE:475 Calculate miscellaneous charges (CS)	**Just for You! SE:475, Calculate miscellaneous charges
4. Define and calculate markup and markdown	PI:019 Determine cost of product (breakeven, ROI, markup) (MN)	
5. Determine the rate of the markup or markdown	PI:019 Determine cost of product (breakeven, ROI, markup) (MN)	
6. Find the cost, markup or selling price when any two of the three are known	PI:019 Determine cost of product (breakeven, ROI, markup) (MN) PI:007 Set prices (MN)	**Just for You! PI:007, Set prices

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7. Find the amount of markdown, the reduced price and the percent of markdown of an item	PI:019 Determine cost of product (breakeven, ROI, markup) (MN) PI:007 Set prices (MN)	**Just for You! PI:007, Set prices
8. Calculate markup based on cost	PI:019 Determine cost of product (breakeven, ROI, markup) (MN)	
9. Calculate markup based on selling price	PI:019 Determine cost of product (breakeven, ROI, markup) (MN)	
10. Convert markups from cost to selling price or from selling price to costs	PI:019 Determine cost of product (breakeven, ROI, markup) (MN)	
Competency E: Payroll	MBA Research Performance Indicators	LAPs
Tasks		
1. Calculate pay based on piecework, salary, commissions, and graduated commissions	FI:438 Calculate employee earnings (SP)	**Just for You! FI:438, Calculate employee earnings
2. Calculate gross pay based on an hourly wage with an overtime policy	FI:438 Calculate employee earnings (SP)	**Just for You! FI:438, Calculate employee earnings
3. Calculate an employee's net earnings per paycheck	FI:068 Interpret a pay stub (PQ)	
4. Prepare an individual payroll or earnings record	FI:134 Maintain employee earnings records (e.g., timecards, time sheets, etc.) (CS)	
5. Find federal tax withholding per paycheck using IRS tax tables and IRS percentage method	FI:442 Calculate payroll taxes (SP)	
6. Calculate Social Security Tax and Medicare tax per paycheck	FI:442 Calculate payroll taxes (SP)	

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7. Find an employer's total deposit for withholding tax, social security tax, and Medicare tax per pay period and quarterly	FI:442 Calculate payroll taxes (SP)	
8. Calculate federal and state unemployment taxes	FI:442 Calculate payroll taxes (SP)	
9. Compute business expenses related to employees: benefits, disability insurance, travel, and employee training	FI:439 Calculate employee deductions (SP)	**Just for You! FI:439, Calculate employee deductions
Competency F: Investments	MBA Research Performance Indicators	LAPs
Tasks		
1. Define investment terms such as risk, yields, P/E ratio, and rate of return	FI:097 Calculate financial ratios (MN)	**Just for You! FI:097, Calculate financial ratios
2. Explain the effect compounding has in an investment and lending environment	FI:062 Explain the time value of money (CS)	
3. Compare investment decisions and make mathematical comparisons of investment alternatives	FI:281 Interpret financial ratios significant to investors (SP) FI:284 Choose investments based on security's fundamental analysis (SP) NF:222 Interpret descriptive statistics for investment decision making (SP) NF:223 Interpret correlations for investment decision making (SP)	**LAP-QS-043, Go Figure! The Sequel (Interpret Financial Ratios for Investment) **LAP-QS-046, Pick and Choose (Choose Investments)
4. Calculate the net present value of an investment such as certificate of deposit, savings account, stocks, and mutual funds	FI:238 Calculate the time value of money (SP)	**Just for You! FI:238, Calculate the time value of money

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5. Determine stock yield, earnings per share, and price-earnings ratio	FI:097 Calculate financial ratios (MN)	**Just for You! FI:097, Calculate financial ratios
6. Compute the anticipated rate of return on specific investments and savings accounts using various factors such as simple or compound interest, dividends, fees, etc	FI:367 Calculate stock-related values (e.g., the value of a constant growth stock, the expected value of future dividends, the expected rate of return, etc.) (SP) FI:236 Calculate bond-related values (e.g., the price of a bond given its yield to maturity, the coupon interest payment for a bond, the effects of interest rates on the price of a bond, etc.) (SP)	
Competency G: Taxes	MBA Research Performance Indicators	LAPs
Tasks		
1. Define tax terms such as standard deduction, itemized deductions, exemptions, and various types of taxes such as income tax, sales tax, and property tax	FI:074 Prepare personal income tax forms (CS)	**Just for You! FI:074, Prepare personal income tax forms
2. Define and calculate property taxes based on local percentages/guidelines		
3. Calculate sales tax on purchase	SE:475 Calculate miscellaneous charges (CS)	**Just for You! SE:475, Calculate miscellaneous charges
4. Complete a 1040 EZ Federal Income Tax Form with a W2 form	FI:074 Prepare personal income tax forms (CS)	**Just for You! FI:074, Prepare personal income tax forms
5. Prepare a 1040 A using W2 and 1099 Interest form	FI:074 Prepare personal income tax forms (CS)	**Just for You! FI:074, Prepare personal income tax forms
6. Complete basic tax forms such as W2 and W4		

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Competency H: Bank Records	MBA Research Performance Indicators	LAPs
Tasks		
1. Compare different types of banking options such as credit unions and other banks	PD:288 Describe types of banking institutions (e.g., central banks, retail banks, universal banks, etc.) (SP)	
2. Identify the types of banking services and their costs for meeting various needs	PD:154 Describe types of personal banking products and services (CS)	
3. Write a check, prepare deposits, and prepare withdrawal slips	FI:560 Write checks (PQ)	
4. Maintain a check register including proper procedures for ATM and automatic payment withdrawals	FI:069 Maintain financial records (PQ)	
5. Reconcile a bank statement	FI:070 Balance a bank account (PQ)	**Just for You! FI:070, Read and reconcile bank statements
6. Utilize online banking and bill payment options securely	FI:830 Manage online accounts (CS)	
Competency I: Insurance	MBA Research Performance Indicators	LAPs
Tasks		
1. Identify and compare types of insurance	FI:081 Describe the concept of insurance (CS)	
2. Read insurance premium charts and determine the cost of a particular policy	FI:081 Describe the concept of insurance (CS)	
3. Analyze insurance proposal for auto and determine costs of compulsory insurance and costs of optional coverage	PD:319 Describe components of automobile insurance coverage (SP)	
4. Analyze health insurance premiums and calculate based on selected options	PD:320 Discuss the nature of health insurance coverage (SP)	

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5. Compute the costs and benefits of specific insurance plans	FI:571 Determine insurance needs (SP)	
6. Analyze deductibles and their effect on policy	FI:081 Describe the concept of insurance (CS)	
Competency J: Depreciation	MBA Research Performance Indicators	LAPs
Tasks		
1. Distinguish between straight-line method, declining balance method, sum of the year's digits method, and MACRS method	FI:345 Discuss the nature of depreciation (SP)	
2. Determine straight-line depreciation for a year	FI:691 Account for long-term assets (e.g., record acquisition, record depreciation/amortization, record disposal) (SP)	
3. Determine the depreciation expense on plant assets by the sum of the year's digits and declining balance	FI:691 Account for long-term assets (e.g., record acquisition, record depreciation/amortization, record disposal) (SP)	
4. Determine modified accelerated cost recovery system depreciation	FI:691 Account for long-term assets (e.g., record acquisition, record depreciation/amortization, record disposal) (SP)	
5. Use the straight-line depreciation method to find the value of an asset	FI:691 Account for long-term assets (e.g., record acquisition, record depreciation/amortization, record disposal) (SP)	

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Competency K: Inventory	MBA Research Performance Indicators	LAPs
Tasks		
1. Determine the cost and value of inventory	FI:436 Determine the cost/value of inventory (SP) OP:427 Conduct inventory valuation (LIFO, FIFO) (MN)	
2. Determine rate of inventory turnover	OP:498 Use supply chain performance measures to evaluate achievement of goals (e.g., perfect order fulfillment, inventory turnover, cash-to-cash conversion cycle, fill rate) (SP)	
3. Determine the value of ending inventory using Average Cost (weighted average), FIFO, and LIFO	FI:436 Determine the cost/value of inventory (SP) OP:427 Conduct inventory valuation (LIFO, FIFO) (MN)	
Competency L: Ratios and Proportions	MBA Research Performance Indicators	LAPs
Tasks		
1. Define the terms ratio and proportion	FI:097 Calculate financial ratios (MN)	**Just for You! FI:097, Calculate financial ratios
2. Use ratios to evaluate profitability, efficiency, and leverage	FI:097 Calculate financial ratios (MN) FI:552 Calculate activity/efficiency ratios (MN) FI:553 Calculate debt/leverage ratios (MN) FI:554 Calculate business profitability (MN)	**Just for You! FI:097, Calculate financial ratios
3. Create ratios to express the quantitative relationship between two amounts	FI:097 Calculate financial ratios (MN)	**Just for You! FI:097, Calculate financial ratios

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4. Use ratios, proportions, and percents to solve problems involving financial calculations	FI:097 Calculate financial ratios (MN)	**Just for You! FI:097, Calculate financial ratios
5. Analyze and explain methods for solving problems involving proportions such as scaling and finding equivalent ratios		

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