



MBF3C - Mathematics of Personal Finance

Planning Balanced Assessment

Curriculum Expectations and Achievement Chart Categories and Assessment Strategies

Multiple Choice Questions			
No.	Cat.	Exp.	Specific Expectations
1	KU	CI3.03	<ul style="list-style-type: none"> Determine through investigation, the properties of a variety of investment alternatives (e.g., stocks, bonds, mutual funds, real estate), and compare the alternatives from the point of view of risk versus return
2	KU	EG3.03	<ul style="list-style-type: none"> Evaluate numerical expressions involving negative and decimal exponents, using scientific calculators
3	KU	EG2.02	<ul style="list-style-type: none"> Compare the rates of change of different types of functions (e.g., those with equations $y = 2x$, $y = x^2$, $y = 2^x$)
4	KU	CI1.03	<ul style="list-style-type: none"> Solve problems related to the formulas for the nth term and the sum of n terms of arithmetic and geometric sequences and series
5	KU	PF1.03	<ul style="list-style-type: none"> Calculate the fixed and variable costs involved in owning and operating a vehicle (e.g. the licence fee, insurance, maintenance)
6	KU	PF4.07	<ul style="list-style-type: none"> Compare the value of the Canadian dollar with the values of foreign currencies over a period of time and identify possible effects on purchasing and travel decisions
7	KU	EG3.05	<ul style="list-style-type: none"> Solve exponential equations involving common bases (e.g., $2^x = 32$, $4^{5x-1} = 4^{x+11}$, $3^{5x+8} = 27^x$)
8	KU	CI2.06	<ul style="list-style-type: none"> Demonstrate an understanding of the relationships between simple interest, arithmetic sequences, and linear growth
9	KU	CI2.07	<ul style="list-style-type: none"> Demonstrate an understanding of the relationships between compound interest, geometric sequences, and exponential growth
10	KU	PF1.01	<ul style="list-style-type: none"> Identify the procedures, costs, advantages, and disadvantages involved in buying a new vehicle and a used vehicle
Short Answer Questions			
No.	Cat.	Exp.	Specific Expectations
1	KU	EG2.01	<ul style="list-style-type: none"> Sketch the graphs of simple exponential functions, given their equations (e.g. those with equation $y = 2^x$, $y = 10^x$, $y = (0.5)^x$) without using technology
2	KU	EG3.04	<ul style="list-style-type: none"> Simplify algebraic expressions involving integral exponents, using the laws of exponents
3	AP	CI2.03	<ul style="list-style-type: none"> Solve problems involving the calculation of the interest rate per period (i) and the number of periods (n) in the compound-interest formula $A = P(1 + i)^n$, using a spreadsheet
4	KU	CI1.02	<ul style="list-style-type: none"> Determine whether a sequence is arithmetic or geometric, or neither.
5	AP	CI2.07	<ul style="list-style-type: none"> Demonstrate an understanding of the relationships between compound interest, geometric sequences, and exponential growth
6	AP	CI2.03	<ul style="list-style-type: none"> Solve problems involving the calculation of the amount (A) and the principal (P) in the compound-interest formula $A = P(1 + I)^n$
7	PS	CI3.12	<ul style="list-style-type: none"> Demonstrate, using technology, the effects of delayed payment on a credit card balance, on the basis of current credit card rates and regulation
8	AP	CI2.04	<ul style="list-style-type: none"> Solve problems involving the calculation of the amount and the regular payment in the formula for the amount of an ordinary annuity, using scientific calculators
9	AP	CI2.05	<ul style="list-style-type: none"> Solve problems involving the calculation of the present value and the regular payment in the formula for the present value of an ordinary annuity, using scientific calculators
10	PS	PF2.02 PF2.03	<ul style="list-style-type: none"> Compare the costs of maintaining an apartment with the costs of maintaining a house Compare the advantages and disadvantages of renting accommodation with the advantages and disadvantages of buying accommodation

Extended Response Questions			
No.	Cat.	Exp.	Specific Expectations
1	All	EG1.01	<ul style="list-style-type: none">Describe the significance of exponential growth or decay within the context of applications represented by various mathematical models (e.g., tables of values, graphs, equations)
		EG1.02	<ul style="list-style-type: none">Compare the effects of exponential growth within a context (e.g., interest earned, population size) with the effects of linear or quadratic growth within the same context
		EG1.03	<ul style="list-style-type: none">Pose and solve problems related to models of exponential functions drawn from a variety of applications, and communicate the solutions with clarity and justification
2	All	CI3.05	<ul style="list-style-type: none">Identify the common terminology and features associated with mortgages
		CI3.06	<ul style="list-style-type: none">Describe the manner in which interest is usually calculated on a mortgage (i.e. compounded semi-annually but calculated monthly) and compare this with the method of interest compounded monthly and calculated monthly)
		CI3.07	<ul style="list-style-type: none">Generate an amortization table for a mortgage, using a spreadsheet or other appropriate software
		CI3.08	<ul style="list-style-type: none">Calculate the total amount of interest paid over the life of a mortgage, using a spreadsheet or other appropriate software, and compare the amount with the original principal of the mortgage or value of the property
		CI3.09	<ul style="list-style-type: none">Compare the effects of various payment periods, payment amounts, and interest rates on the length of time needed to pay off a mortgage
Performance Task			
No.	Cat.	Exp.	Specific Expectations
1	All	PF4.01	<ul style="list-style-type: none">Describe a decision involving a choice between alternatives (e.g., Which program should I study at college? What car should I buy? Should I stay at home or rent an apartment?)
		PF4.03	<ul style="list-style-type: none">Summarize the advantages and disadvantages of the alternatives to a decision, using lists and organization charts
		PF4.04	<ul style="list-style-type: none">Compare alternatives by rating and ranking information and by applying mathematical calculations and analysis, as appropriate (e.g., calculating loan payments or interest rates; constructing graphs or tables), using technology
		PF4.05	<ul style="list-style-type: none">Explain the process used in making a decision and justify the conclusions reached
		PF5.01	<ul style="list-style-type: none">Identify the advantages and disadvantages of a variety of occupations of personal interest
		PF5.02	<ul style="list-style-type: none">Compare the expected income for a variety of occupations with the costs of the education or training required
		PF2.04	<ul style="list-style-type: none">Summarize the findings of investigations in effective presentations, blending written and visual forms
2	All	PF3.04	<ul style="list-style-type: none">Determine the effect on an overall budget of changing one component using a spreadsheet or budgeting software
		PF4.02	<ul style="list-style-type: none">Collect relevant information related to the alternatives to be considered in making a decision
		PF4.03	<ul style="list-style-type: none">Summarize the advantages and disadvantages of the alternatives to a decision, using lists and organization charts
		PF4.05	<ul style="list-style-type: none">Explain the process used in making a decision and justify the conclusions reached
		PF2.04	<ul style="list-style-type: none">Summarize the findings of investigations in effective presentations, blending written and visual forms
3	All	CI3.14	<ul style="list-style-type: none">Design an effective financial plan to facilitate the achievement of a long-term goal (e.g. attending college, purchasing a car, moving into an apartment, purchasing a house, establishing a small business)
4	All	CI3.04	<ul style="list-style-type: none">Demonstrate, through calculation, the advantages of early deposits to long-term savings plans (e.g., compare the results of making an annual deposit of \$1000 to an RRSP, beginning at age 20, with the results of making an annual deposit of \$3000, beginning at age 50)
		CI3.07	<ul style="list-style-type: none">Generate an amortization table for a mortgage, using a spreadsheet or other appropriate software
		CI3.10	<ul style="list-style-type: none">Demonstrate through calculations, using technology, the effect on interest paid of retiring a loan before it is due