

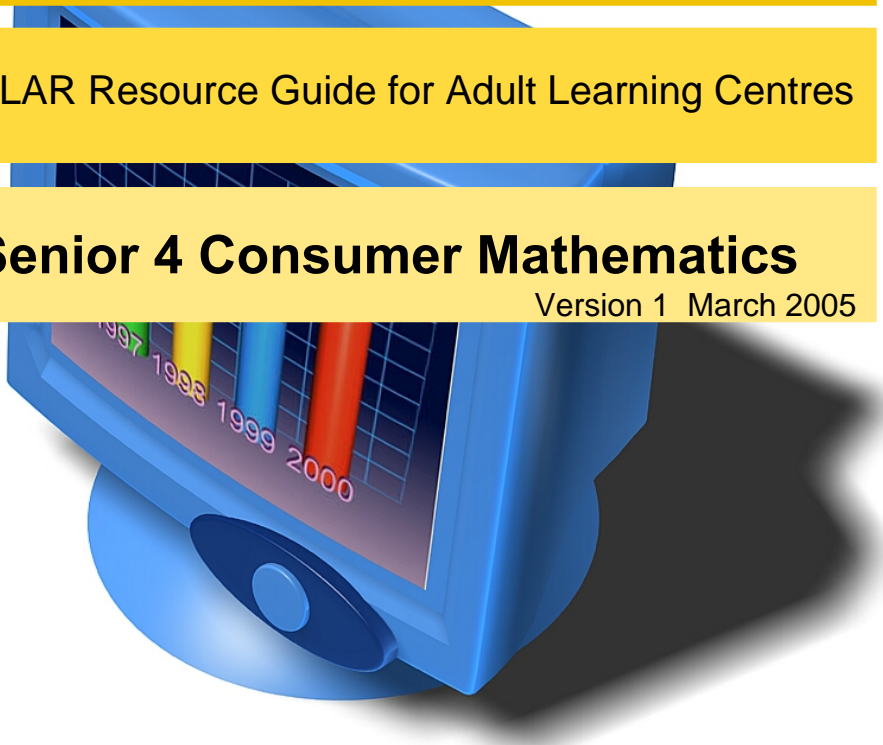
PLAR

Prior Learning Assessment and Recognition (PLAR)

PLAR Resource Guide for Adult Learning Centres

Senior 4 Consumer Mathematics

Version 1 March 2005



PLAR Skills
Assessment
Learning
Knowledge
recognition
prior
Change Skills
Prior
Change Learning
Assessment
Learning
knowledge
Change
skills recognition
Knowledge
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For further information contact:

Adult Learning and Literacy
310 - 800 Portage Avenue
Winnipeg, Manitoba R3G 0N4
Phone: (204) 945-8012 Fax (204) 948-1008
www.edu.gov.mb.ca/aet/all/index.html



TABLE OF CONTENTS

Introduction	1
Learning Outcomes and Elements of Performance.....	2
Unit A: Problem Analysis.....	2
Unit B: Analysis of Games and Numbers.....	2
Unit C: Personal Finances	2
Unit D: Design and Measurement	2
Unit E: Government Finances	3
Unit F: Statistics	3
Unit G: Investigative Project.....	4
Unit H: Career/Life Project	4
Unit I: Investments	4
Unit J: Income Tax	5
Unit K: Variation and Formulas	5
Unit L: Completing a Portfolio	5
Course Resource List.....	6
Self-Assessment Checklist.....	7
Suggested Course of Action.....	13
PLAR Challenge Process	14
Sample Project/Personal Finance Unit	15
Consumer Math Test Module 1	21
Consumer Math Test Module 2.....	24
Consumer Math Test Module 3.....	30
Consumer Math Test Module 4.....	33
Consumer Math Test Module 5.....	36
Consumer Math PLAR process Module 6.....	42
Consumer Math Project Module 7.....	42
Consumer Math Test Module 8.....	43
The Next Step	46



INTRODUCTION

Consumer is an Senior 4 Mathematics course which focuses on the consumer aspect of Mathematics. This course is one of three Mathematics courses that a student can earn toward a High School Diploma.

If you have sufficient skills in these areas, you may be able to obtain full or partial credit for this course through Prior Learning Assessment and Recognition (PLAR).

The document contains the general course learning outcomes to Senior 4 Consumer Mathematics, along with a self-assessment checklist of all the specific learning outcomes covered in the course. After completing the checklist you will be able to determine if you have enough prior learning to go through the PLAR process for this course.

The PLAR process for Senior 4 Consumer Mathematics is outlined in this document. By completing the PLAR process in its entirety and achieving the minimum standard, you could receive credit for Senior4 Consumer Mathematics without taking the course.



LEARNING OUTCOMES

After completing the course, students will be able to:

Unit A: Problem Analysis

1. Develop and use mathematical strategies to solve problems in different situations

Explain and solve problems using a variety of non-algebraic approaches

- 1.1. Describe the approach and the mathematics used in solutions to problems or activities

Unit B: Analysis of Games and Numbers

2. Develop, use, and justify mathematical strategies by analyzing a variety of puzzles and games; develop an awareness of how numbers are used in society

- 2.1. Develop, use, and justify mathematical strategies by analyzing a variety of puzzles and games; develop an awareness of how numbers are used in society
- 2.2. Demonstrate the use of an appropriate strategy in solving puzzles and playing games involving patterns
- 2.3. Explain how numbers are used throughout society to designate, categorize, and order things and events

Unit C: Personal Finances

3. Demonstrate an awareness of and show the ability to solve problems involving insurance, mortgages and loans

- 3.1. Solve problems involving different types of insurance
- 3.2. Solve problems involving mortgages
- 3.3. Describe the costs involved in purchasing a home
- 3.4. Interpret the Gross Debt Service Ratio to determine the economic feasibility of a home purchase

Unit D: Design and Measurement

4. Analyze objects, shaped, and processes to solve cost and design problems

- 4.1. Draw simple objects as oblique projections
- 4.2. Sketch simple object's in "exploded" format
- 4.3. Draw the constituent parts of a simple object to scale
- 4.4. Describe the differences among oblique projections, "exploded" diagrams, and constituent parts diagram for objects



LEARNING OUTCOMES

- 4.5. Solve problems involving estimation and costing for objects, shapes, or processes when a design is given
- 4.6. Plan the construction of an object within a specified budget

Unit E: Government Finances

5. Demonstrate an understanding of federal, provincial, and municipal revenues and expenditures

- 5.1. Interpret, based on charts or tables, the largest expenditures for each of the three levels of government
- 5.2. Interpret, based on charts or tables, the largest expenditures for each of the three levels of government
- 5.3. Interpret, based on charts or tables, major sources of revenue for federal, provincial, and municipal levels of government
- 5.4. Solve and explain the solution of problems involving federal taxes such as GST, excise taxes, and customs duties
- 5.5. Solve and explain the solution of problems involving foreign currency exchange
- 5.6. Solve and explain the solution of problems involving selected provincial taxes such as PST, fuel and tobacco
- 5.7. Explain the determination of education taxes, municipal mill rates, and municipal taxes

Unit F: Statistics

6. Analyze data in graphical and tabular form to derive information and meaning

- 6.1. Make and justify inferences from graphical and tabular data
- 6.2. Determine the percentile rank of an item in a set of sample data
- 6.3. Determine the percentile rank of an item in a set of sample data
- 6.4. Distinguish between percent and percentile rank
- 6.5. Use standard deviation to describe the variability within a set of data
- 6.6. Explain the variability of data using standard deviation and the normal curve
- 6.7. Describe the relationship between the correlation coefficient and two data sets



LEARNING OUTCOMES

Unit G: Investigative Project

7. Complete an investigative project related to consumer mathematical skills, strategies, and activities

- 7.1. Conduct an investigation requiring the use of data and mathematical problem solving and decision making
- 7.2. Develop a structured report of an investigative study related to consumer mathematics

Unit H: Career/Life Project

8. To analyze career choices and the factors that determine different lifestyles

- 8.1. Describe factors important in selecting careers (factors such as: job description, educational background, salary/wage levels, employment opportunities for advancement)
- 8.2. Analyze the lifestyle of one specific career could entail (in terms of monthly budget, lifestyle appropriate to the career, and any negative factors in the job)

Unit I: Investments

9. Demonstrate an awareness of and recognize the differences concerning different types of financial investments

- 9.1. Explain how financial values and goals affect investment choices
- 9.2. Describe different investments options e.g. GICs, bonds, mutual funds, stocks and real estate
- 9.3. Compare and contrast different investment options in terms of risk, rates of return, costs, liquidity and lengths of term
- 9.4. Identify reasons for investing money in registered saving plans (RSPs)
- 9.5. Describe the purchasing and selling of stocks
- 9.6. Adjust financial plans including budgets, to achieve personal goals
- 9.7. Interpret Net Worth Statements



LEARNING OUTCOMES

Unit J: Income Tax

10. Demonstrate an ability to complete an income tax form

Explain the purpose of different sections of the T1 General Income Tax Form

- 10.1. Using software and printed forms, complete income tax forms for:
 - 10.1.1. a single parent with a child
 - 10.1.2. a married couple

Unit K. Variation and Formulas

11. Use algebraic and graphical models to generalize patterns make predictions and solve problems

- 11.1. Plot and analyze examples of direct variation, partial variation and inverse variation
- 11.2. Given data, graphs, or a situation, interpret the variation represented
- 11.3. Use formulas given in the question to solve problems
- 11.4. Select and use given formulas to solve problems

Unit L: Completing a Portfolio

12. Demonstrate an ability to organize a portfolio and discuss its contents in terms of consumer mathematics skills, strategies and activities

- 12.1. Develop a portfolio of consumer mathematics skills, strategies and activities
- 12.2. Discuss the contents of the portfolio and their relation to consumer mathematics
- 12.3. Justify the inclusion of portfolio items



COURSE RESOURCES

The following is a list of resources and references used in this course:

Feel free to use any of the listed resources to help refresh your memory on specific topics that you feel the weakest in.

Manitoba Education and Training. Distance Education Material

Key Curriculum Press. *Innovations in Mathematics Education*. P.O. Box 2304, Berkeley, California 94702

Lial & Salzman. *Essential Mathematics*

Steck & Vaughn. *Working with numbers Refresher*

Math.com.

Teachers and students should feel free to use whatever resources at their disposal. There are many other great resources that we all can use.

PLAR SELF-ASSESSMENT CHECKLIST

COURSE: SENIOR 4 CONSUMER MATHEMATICS

The checklist indicates all of the learning outcomes covered in the Senior 4 Consumer Mathematics. Please use it to measure your abilities in the different areas and uncover areas of weakness.

If you have scored:

105 – 132 ✓	60-104 ✓	31-59 ✓	Less than 30 ✓
You have a good chance of succeeding in the PLAR process	You could proceed with the challenge process after self study to improve in weak areas	You could identify the strongest areas and do a partial PLAR on your areas of strength	You still might have an area of strength that you could PLAR. However, you need to consider taking the S-4 Consumer Mathematics course and one of the Adult Learning Centres.

Your Adult Learning Centre may grant credit for individual sections of the S-4 Mathematics course. Ask the PLAR advisor if this is an option.

PLAR Challenge Assessment Process

Once you have completed the self-assessment and decide that you are ready to challenge the Senior 4 Consumer Mathematic course or individual units, to the assessment section, which outlines different assessment procedures that you might go through in order to receive recognition for this course (or a unit) through the PLAR process.

Total possible number of checkmarks is **132**.

Discuss your results with an Adult Learning Centre PLAR Advisor.

Note: Individual adult learning centres may have additional requirements. Speak to the PLAR advisor for more information

PLAR SELF-ASSESSMENT CHECKLIST

Circle the number that best represents your answer for the questions below. Make a check in the column if you can prove or demonstrate the described skill. ? When you are finished add up your score.

Outcomes in reference to the Manitoba Education and Training Distance Learning Curriculum

Unit A: Problem Analysis						
	Out-comes	Never 0	Rarely 1	Some- times 2	Often 3	Check if you can prove or demonstrate √
1. Can you calculate the monthly payment on a mortgage?	Module 1 Lessons 3 & 4	0	1	2	3	
2. Can you identify the difference between a fixed and a variable mortgage?	Module 1 Lessons 3 & 4	0	1	2	3	
3. Can you identify the difference between a term and a whole life insurance policy?	Module 1 Lesson 1	0	1	2	3	
4. Can you calculate the annual, semi-annual and monthly insurance rates for a term life insurance policy?	Module 1 Lesson 1	0	1	2	3	
5. Can you calculate the annual, semi-annual and monthly insurance rates for a whole life insurance policy?	Module 1 Lesson 1	0		2	3	
6. Can you list the closing costs when purchasing a home?	Module 1 Lesson 5	0	1	2	3	
7. Can you describe the gross debt service ratio used to determine the affordability to buy a home?	Module 1 Lesson 5	0	1	2	3	
8. Can you describe the financial values and goals that affect the types of investments a person would make?	Module 5 Lesson 3 & 4	0	1	2	3	

PLAR SELF-ASSESSMENT CHECKLIST

Unit A: Problem Analysis - continued						
	Out-comes	Never 0	Rarely 1	Some- times 2	Often 3	Check if you can prove or demonstrate √
9. Can you describe the difference between investments options such as: GICs, bonds, mutual funds, stocks and real estate?	Module 5 Lesson 3 & 4	0	1	2	3	
10. Can you compare and contrast different investment options in terms of risk, rates of return, costs, liquidity and lengths of term?	Module 5 Lesson 3 & 4	0	1	2	3	
11. Describe the purchasing and selling of stocks	Module 5 Lesson 3 & 4	0	1	2	3	
12. Identify reasons for investing money in registered saving plan (RRSPs)?	Module 5 Lesson 3 & 4	0	1	2	3	
13. Can you describe the purchasing and selling of stocks?	Module 5 Lesson 3 & 4	0	1	2	3	
14. Can you adjust financial plans including budgets, to achieve personal goals?	Module 5 Lesson 1 & 2	0	1	2	3	
15. Can you interpret Net Worth statements	Module 5 Lesson 5	0	1	2	3	
16. Do you have a current resume that you developed?	Module 6	0	1	2	3	
17. Can you create a cover letter?	Module 6	0	1	2	3	
18. Have you done an extensive career assessment?	Module 6	0	1	2	3	
19. Can you produce a budget that would be suitable for you while attending college?	Module 6	0	1	2	3	

PLAR SELF-ASSESSMENT CHECKLIST

Unit A: Problem Analysis – continued						
	Out-comes	Never 0	Rarely 1	Some- times 2	Often 3	Check if you can prove or demonstrate √
20. Can you draw objects as Oblique projections?	Module 3 Lesson 2	0	1	2	3	
21. Can you sketch simple object's in "exploded" format?	Module 3 Lesson 3	0	1	2	3	
22. Can you draw the constituent parts of a simple object to scale?	Module 3 Lesson 4	0	1	2	3	
23. Can you describe the differences among oblique projections, "exploded" diagrams, and constituent parts diagram for objects?	Module 3 The whole module	0	1	2	3	
24. Can you solve problems involving estimation and costing for objects, shapes, or processes when a design is given?	Module 3 Lesson 4	0	1	2	3	
25. Can you plan the construction of an object within a specified budget	Module 3 Lesson 4	0	1	2	3	
Unit A—Sub-total Add left to right.			+	+	+	=

Unit A _____/75

PLAR SELF-ASSESSMENT CHECKLIST

Unit B: Analysis of Games and Numbers						
	Out-comes	Never 0	Rarely 1	Some- times 2	Often 3	Check if you can prove or demonstrate √
1. Can you make and justify inferences from graphical and tabular data?	Module 4 Lesson 1	0	1	2	3	
2. Can you determine the percentile rank of the item in a set of sample data?	Module 4 Lesson 1	0	1	2	3	
3. Can you determine the percentile rank of an item in a set of sample data?	Module 4 Lesson 1	0	1	2	3	
4. Can you distinguish between percent and percentiles rank?	Module 4 Lesson 1	0	1	2	3	
5. Can you use standard deviation to describe the variability within a set of data?	Module 4 Lesson 2	0	1	2	3	
6. Can you explain the variability of data using standard deviation and the normal curve?	Module 4 Lesson 3	0	1	2	3	
7. Can you describe the relationship between the correlation coefficient and two data sets?	Module 4 Lesson 4	0	1	2	3	
8. Can you plot and analyze examples of direct variation, partial variation and inverse variation?	Module 4 Lesson 4	0	1	2	3	
9. Can you, given data, graphs or a situation, interpret the variation represented?	Module 4 Lesson 4	0	1	2	3	
10. Can you use formulas given to the question to solve problems?	Module 4 Lesson 4	0	1	2	3	
11. Can you select and use given formulas to solve problems?	Module 4 Lesson 4	0	1	2	3	
Unit B—Sub-total Add left to right.		+	11+	22+	33=	

Unit B _____/33

PLAR SELF-ASSESSMENT CHECKLIST

Unit C: Personal Finances							
	Out-comes	Never 0	Rarely 1	Some- times 2	Often 3	Check if you can prove or demonstrate √	
1.	Can you, based on charts or tables, interpret the largest expenditures for each of the three levels of government?	Module 2 Lesson 1,2 & 3	0	1	2	3	
2.	Can you, based on charts or tables, interpret the major sources of revenue for federal, provincial and municipal levels of government?	Module 2 Lesson 1,2 & 3	0	1	2	3	
3.	Can you solve and explain the solution of problems involving federal taxes such as GST, excise taxes and custom duties?	Module 2 Lesson 1,2 & 3	0	1	2	3	
4.	Can you solve and explain the solution of problems involving foreign currency exchange?	Module 2 Lesson 6	0	1	2	3	
5.	Can you solve and explain the solution of problems involving selected provincial taxes such as PST, fuel and tobacco?	Module 2 Lesson 1,2 & 3	0	1	2	3	
6.	Can you explain the determination of education taxes, municipal mill rates and municipal taxes?	Module 2 Lesson 1,2 & 3	0	1	2	3	
7.	Can you explain the purpose of different sections of the T1 General Income Tax Form?	Module 7	0	1	2	3	
8.	Can you use software and printed forms to complete tax forms for a single parent with a child and a married couple?	Module 7	0	1	2	3	
Unit C—Sub-total			+	8+	16+	24=	
Add left to right.							

Unit C _____/24

PLAR SELF-ASSESSMENT CHECKLIST

SCORING

Enter your mark total for each unit below:

Unit A: Problem Analysis _____

Unit B: Analysis of Games and Numbers _____

Unit C: Personal Finances _____

Total Score: _____

SUGGESTED COURSE OF ACTION

105 – 132 ✓	60-104 ✓	31-59 ✓	Less than 30 ✓
Contact a teacher at an ALC or other institution that is trained to do PLAR and arrange a meeting.	You should proceed with self study of the course to improve your weaknesses and then proceed to contact a PLAR trained teacher.	Contact a PLAR trained teacher and arrange partial PLAR for your strengths and time to study the areas that you are not able to PLAR.	You should take the S-4 Consumer Math course.



PLAR CHALLENGE PROCESS

ASK YOURSELF: CAN I PLAR THIS COURSE? Yes or No

PLAR Challenge Process

If you feel that your current skills and knowledge match or exceed what is being taught in the Senior 4 Consumer Mathematics course, you can move ahead with the PLAR process. The PLAR process can consist of any of the following methods of evaluating your knowledge of all or specific units of the course. These are examples of some of the assessment tools that can be used by PLAR assessors; individual learning centres may use other evaluation methods.

Interview/demonstration

- Bring samples of work (E.G. documents of mortgage spreadsheet, certificate courses taken, resume and cover letter samples you produced, income tax forms completed)
- Explain to the teacher how you developed these skills.
- Reflect on your thoughts and feelings about you math skills and accomplishments
- Reflect on what you have produced
- What new skills did you learn in producing your work?
- What new knowledge have you gained?
- What was the most difficult or ease for you?
- What was the most satisfying thing that happened?

Task specific assignments

- Create and mortgage spreadsheet
- Create a life insurance profile for whole and term life
- Create a measurement project using imperial and metric measurement
- Create a statistic project based on percent and percentiles. Use direct and indirect variations to represent this data.
- Create a career life project incorporating a budget, income tax and foreign currency exchange and that includes you doing part of your education in another country.

Tests

- Contact a teacher at an ALC or other trained PLAR teacher and arrange to do a series of tests for each module in the Senior 4 Consumer Mathematics course.



PLAR CHALLENGE PROCESS

SAMPLE PROJECT

Course Title **Senior 4 Consumer Math**
Name _____
Date _____

Personal Finance Unit

“So What’s A Mortgage Anyways?” Project

This project covers the following Lessons and page numbers:

Lesson 3 Mortgages (v-c 24-27)

Lesson 4 Mortgages Spreadsheets (v-c 28-29)

Lesson 5 Initial Costs in Purchasing a Home (v-c 30-35)

Lesson 6 Affordable Housing (v-c 36-41)

Preamble: For most of us, our home is the biggest purchase we will ever make. That’s why, finding just the right mortgage is important. When it comes time to choose your mortgage, you will find there are many options to consider. Being informed can save you money and help give peace of mind. Whether you are buying a house for the very first time or looking for an alternative to renting, or possibly upgrading your living space to accommodate a growing family, knowing about mortgages and selecting the one that is right for your needs is not always an easy task.

Direction: In this self-directed project, you will be required to complete an independent study of the lessons listed above dealing with mortgages and the options available when purchasing a new home. The research and study of the units is to be presented in a report or project format. The end product should be a clear, neat and well organised document outlining what you have learned about the topics. In other words, “Show What You Know.” It is hoped that you will be creative in your approach to the presentation of the information. Suggestions include using colour, headings, diagrams and the computer in order to give a polished look to the project. Note: This report would make an excellent sample for your Math portfolio.



PLAR CHALLENGE PROCESS

Sample Project - Continued

Part 1: Please use these general headings: **Title Page, Table of Contents and an Introduction** in this section. In addition a **Vocabulary** section is required outlining the definitions of the following words:

Mortgage Principle, Interest, Mortgage Payment, Amortization Period, Term, Equity, Negotiating A Mortgage, Down Payment, Sale Closing Cost and Extras, Inspection Fees, Mortgage Application Fee, Appraisal Fee, Land Transfer Tax, Property Insurance, Gross Debt Service Ratio.

Part 2: Answer the following questions in this section using headings of your own choosing. Read each question over carefully before answering. Some of the questions may have overlapping answers. **I would like you to write your report as if you were explaining and preparing it for someone who knows very little about buying a house.**

- A. So, What is Mortgage anyways? (Explain what a mortgage is and why you need one. Also, tell why there is no such thing as “just a mortgage.”)
- B. Describe the difference between Closed, Open and Convertible mortgages.
- C. What is meant by Fixed-Rate Mortgages and Variable-Rate Mortgages?
- D. Outline some of the Initial “costs” that a first time homeowner might be faced with. Remember to mention all the additional costs that come with buying a house. Note! There are lots of costs, so try not to leave any out. Also, can you think of any other expenses that a bank or financial lender might want you to consider? (Example. Money for a driveway).
- E. Taxes are an important part of buying a new home. What kinds of taxes will homeowner’s are faced with?
- F. List and describe the 3 other costs associated with buying a mortgage.
- G. What is a Gross Debt Service Ratio? How is it calculated? Hint! Show Formula!



PLAR CHALLENGE PROCESS

Sample Project – Continued

Part 3: Do each of the following math questions. Show all calculations.

A. Homeowner's Insurance Section. (Use pg v-c 23 of book).

Diane and Rod have a home with a Boeckh replacement cost of \$125,000. They live in Metro Winnipeg and want a comprehensive homeowner's insurance policy. What will this cost?

1. With a \$500.00 deductible?
2. With a \$200.00 deductible?

B. Mortgages. (Use amortization table on pg. v-c 41 of book)

Michael borrows \$70,000.00 from the bank for 20 years at 8.5%. What is the monthly payment?

C. Additional Costs in Purchasing a House.

Fill in the following chart with the given information below.

The Jones family lives in Portage la Prairie and is relocating to Winnipeg. They purchase a house for \$ 140,000.00 and hire a mover to move their belongings. The mover charges \$1700.00. A lawyer is hired to look after legalities for a fee of \$900.00. An appraisal is done of the property for a cost of \$425.00. The possession date is July 9th, with the first payment due on July 15th. The interest for the additional 6 days is \$105.00. Property taxes are \$215.00, for which the Jones family have agreed to pay for the months of July to December. Before moving, the Jones family wants to re-do the yard for \$2500.00 and replace the stove and fridge for \$360.00 and \$825.00 respectively. They have agreed to split the cost of the appliances with the sellers. Mrs. Jones wants to replace the drapes with vertical blinds for \$120.00 and paint the bedrooms at a cost of \$685.00. The seller notifies the family that they prepaid the water and garbage to the end of the year at a cost of \$54.50 per month. The Joneses agree to pay for July to December. The cost to hook up the phone is \$25.00 and to activate the natural gas is \$55.00. They increase their insurance to \$540.00 from \$325.00 per year and pay for the remaining months.

PLAR CHALLENGE PROCESS

Sample Project – Continued

ADDITIONAL COSTS IN PURCHASING A HOUSE CHART

Category	Cost
Appraisal Fee	
Inspection Cost	
Property Survey	
Home Insurance	
Interest Adjustment	
Prepaid Property Taxes and Adjustment	
Legal Fees and Disbursements	
Sales Tax	
Moving Expenses	
Service Charge	
Immediate Repairs	
Appliances	
Decorating Costs	
Total Additional Costs	

PLAR CHALLENGE PROCESS

Sample Project – Continued

D. Affordable Housing

Use the information given to fill in the chart below.

A person decided to buy a house worth \$85,000.00. The down payment will be \$6000.00, the monthly property taxes are \$120.00, and the heating costs are \$110.00 per month. Calculate the maximum affordable price, the monthly payment and the gross debt ratio if the bank will finance the house at 7.5 % for 25 years. The gross monthly income is \$2500.00.

Gross Monthly House Income	
Multiply by 32 %	X .32
Total Affordable Household Expenses	

Subtract	
Monthly Property Taxes	-
Monthly Heating Costs	-
Monthly Mortgage Payment Your Household Can Afford	

To calculate total mortgage amount divide by the estimated interest rate factor which corresponds to your interest rate	÷
--	---

Amount of Mortgage you can afford	=
Add your cash down payment	+

Your Maximum affordable price	=
Mortgage Payment	
Gross Debt Service Ratio	
Interest Rate Table*	

Rate	Factor
6.0%	.00640
6.5%	.00670
7.0%	.00701
7.5%	.00732
8.0%	.00764
8.5%	.00796
9.0%	.00828
9.5%	.00861
10%	.00894
10.5%	.00928
11%	.00960
11.5%	.00997



PLAR CHALLENGE PROCESS

Sample Project – Continued

E. Visit a local financial lender

Obtain some information about mortgages or interest rates pertaining to mortgages and include them in your project.

Finish off your project with a **Conclusion**. The conclusion should summarize what you have learned and should always tie back into your introduction.

PLAR CHALLENGE PROCESS

CONSUMER MATH MODULE 1

Please show work and round of to the nearest one hundredth.

1. Calculate the land transfer tax on a home with a purchase price of \$235,000.00

\$0 - \$30,000.00	no charge
\$30,000.00 to \$90,000.00	.5%
\$90,000.00 to 150,000.00	1%
\$150,000 and up	1.5%

2. Sandra Puff is a 25-year old non-smoker. She is interested in purchasing a whole life insurance policy with a face value of \$975,000.00.
- Calculate her annual premium.
 - Calculate her premium if she chooses to pay the policy semi-annually.
 - Calculate Sandra's cash surrender value at the age of 65.
 - Calculate the total amount in premiums Sandra has paid to the age of 65. (premiums paid semi-annually)
3. The Thrifty family purchases a house for \$800,500.00. They are able to make a down payment of \$295,000.00 on the home and take out a fixed-rate mortgage at 8.75% for the balance of the purchase price. The mortgage is amortized over 25 years. Do (a) through (e) by pencil and paper and then do part (f) and (g) on excel spreadsheet and print results.)
- Determine the Thriftys monthly mortgage payments.
 - Determine the interest paid on the first payment.
 - Determine the amount of balance paid by the first payment
 - Determine the unpaid balance after the first payment.
 - Determine the owner's equity after the first payment.
 - Using excel spreadsheet create a spreadsheet that shows the payments for twenty years.
 - Determine the amount of interest paid over the period of the mortgage.

Payment #	Total Payment	Interest	Principal	Unpaid Balance	Owner's Equity

PLAR CHALLENGE PROCESS

Consumer Math Module 1 – continued

4. The Wannabe family would like to purchase a home. The family has a gross monthly income of \$2,900.00. They are able to make a down payment of \$8,000.00 toward the purchase of their home. The Wannabe's are looking to amortize their home over 25-year period. Their financial institution offers them a fixed-rate mortgage at a rate of 11.5%.

The family estimates their monthly property taxes to be about \$250.00 and their monthly heating costs to be about \$250.00

Calculate the maximum price the Wannabe family can pay for a home.

Use the chart below.

Gross monthly household income		\$ _____
Multiply: (<i>Gross Debt Service ratio</i>)	32%	
Total affordable household expenses		
Subtract:		
Monthly property taxes		
Monthly heating costs		
1/2 if condo/strata fees (if applicable)		
Monthly affordable mortgage payment		
Divide: Interest factor (<i>from Table 1</i>)		
Amount of affordable mortgage		
Add: cash down payment		
Maximum affordable home price		

INTEREST RATE FACTOR TABLE	
Rate	Factor
6.0%	.00640
6.5%	.00670
7.0%	.00700
7.5%	.00732
8.0%	.00763
8.5%	.00795
9.0%	.00828
9.5%	.00861
10.0%	.00894
10.5%	.00928
11.0%	.00963
11.5%	.00997
Based on 25-year amortization	

PLAR CHALLENGE PROCESS

Consumer Math Module 1 – continued

5. The Horsefly family has purchased a home. The purchase price of their new home is \$400,800.00. They take possession of their home on June 1st. The property tax is \$9,500.00 (calculate repayment). Also, the home insurance is \$150 monthly and renewed in June 1st of each year (calculate repayment). When purchasing their home they are billed for some miscellaneous costs. Fill out the chart below and determine the closing cost for their home.

They are as follows:

- | | |
|--|---------------------------------|
| 1. Inspector cost \$600.00 | 7. Legal fees \$5000.00 |
| 2. Mortgage application \$75.00 | 8. Service charges \$444.00 |
| 3. Appraisal fee \$85.00 | 9. Moving expenses \$999.99 |
| 4. Land transfer \$5488.33 | 10. Immediate repairs \$6666.99 |
| 5. Property survey \$300.00 | 11. Appliances \$11,000.00 |
| 6. Other legal disbursements \$1720.00 | 12. Decorating costs \$7777.88 |

Plus, interest adjustment of \$1005.50

Initial fees		
Inspection fee		
Mortgage application fee		
Appraisal fee		
Total initial fee		

Lawyer disbursement and fees		
Land transfer tax		
Property survey		
Other legal disbursements		
Legal fees		
Total lawyer's disbursement and fees		

Adjustments		
Interest adjustment		
Property tax adjustment		
Home insurance adjustment		
Total adjustments		

Other additional costs		
Service charges		
Moving expenses		
Immediate repairs		
Appliances		
Decorating costs		
Total other additional costs		
Total Closing Costs and Extras		

PLAR CHALLENGE PROCESS

CONSUMER MATH MODULE 2

1. In the table below write which level of government has the following categories as revenue?

- | | |
|----------------------------------|--------------------------|
| a. employment insurance premiums | g. driver's licenses |
| b. personal income tax | h. corporate income tax |
| retail sales tax | i. customs import duties |
| c. gasoline tax | j. property tax |
| d. business tax | k. goods and service tax |
| e. excise tax | l. cigarette tax |

Municipal	Provincial	Federal

2. In the table below write which level of government has the following categories as expenditures?

- | | |
|-------------------------|----------------------------------|
| a. libraries | g. employment insurance benefits |
| b. justice | h. education |
| National Defence | i. ambulance |
| c. debt | j. health |
| d. transit | k. old age security |
| e. police | |

Municipal	Provincial	Federal



PLAR CHALLENGE PROCESS

Consumer Math Module 2 – continued

3. A Manitoba municipality has a total taxable portioned assessment base of \$531,890,000.00. The municipality prepares its budget and finds it requires \$15,000,000.00 from property taxes.
 - a. Calculate the tax rate expressed as a mill rate.
 - b. Calculate the tax rate expressed as a percentage rate.
 - c. Calculate the tax rate expressed as cents per dollar.

4. A Manitoba municipality is preparing its budget. The municipality has a total taxable portioned assessment base of \$1,439,000,000.00. The municipality is debating over a budget that would require as low as \$6,798,000.00 or as high as \$9,000,000.00 to be raised from property taxes.
 - a. Find the tax rate expressed as a mill rate for a projected budget of \$9,000,000.00.
 - b. Find the tax rate expressed as a mill rate for a projected budget of \$6,798,000.00.
 - c. Find the difference in mill rate between the two budgets.

PLAR CHALLENGE PROCESS

Consumer Math Module 2 – continued

5. Complete a Statement and Demand for Taxes based on the following information.

Home Address: #999 Exam Boulevard
Someplace Manitoba

Frontage: 75 feet

Land Assessment: \$802,999.00

Building Assessment: \$11,210,560.00

General Municipal rate: 3.915

Property Improvement tax: Concrete street paving, Sewer renewal, Installation of water main, Asphalt surfacing roadways and ornamental street lighting.

Provincial Education tax #1 rates: 2.957

School Division tax rate: 9.432

Local Improvement Costs for Property Tax Credits		
Property Improvements	Terms	Costs per Frontage Foot
Asphalt surfacing roadways	10 year	\$13.41
Boulevard construction	3 year	\$3.60
Concrete sidewalk	5 year	\$3.80
Concrete street paving	10 year	\$17.28
Granular surface lane	3 year	\$7.43
Land drainage system	20 year	\$0.45
Lane lighting	3 year	\$4.82
Lane oiling	1 year	\$9.42
Ornamental lighting (lane)	10 year	\$2.08
Ornamental lighting (street)	3 year	\$3.55
Road oiling	1 year	\$3.05
Sewer renewal	20 year	\$1.60
Water renewal	20 year	\$0.65
Installation of water main	10 year	\$5.07

PLAR CHALLENGE PROCESS

Consumer Math Module 2 – continued

PROPERTY DESCRIPTION							
Roll Number	Ward	Lot/Section	Blk/Twp	Plan/Range	Frontage/Area	Dwell.Units	
Civic Address:							
Time or Deed No.	Current Assessment		Status Code	Total Assessment	Prop. Class	Portion %	Total Portioned Assessment
	Land	Bldgs					

- ❖ Error and omissions excepted
- ❖ All land in Arrears for more than one year shall be sold for taxes
- ❖ All cheques made in Canadian funds
- ❖ Bank receipts constitutes official receipts
- ❖ Retain copy for income tax purposes

Assessment Subject to local improvement Levy

Municipal Taxes	Description			Total Portioned Assessment	Mill rate	Levy	
	General Municipal						
	By-Law No.	Term	Type	Frontage Levy	Cost/ft	Levy	
Educational Taxes	Description			Total Portioned Assessment	Mill rate	Levy	
	Provincial Education 1						
	Provincial Education 2						
	School Division Tax						
Provincial Tax Credits	(See Manitoba Enclosure For Additional Information)						
	Description				Credit		
	Manitoba Resident Homeowner Tax Assistance						
TOTAL TAXES DUE							
Municipal Tax	Education Tax	Total Taxes	Prov. Credit	Net Taxes	Arrears/Credits	Added Taxes	Taxes Due

PLAR CHALLENGE PROCESS

Consumer Math Module 2 – continued

6. Fred has spent three years working in Greece. He has saved \$97,500,000.00 Drachma. How much is he saving in Canadian dollars? (5 marks)

7. Fredrica has planned a trip to Florida. She thinks she needs to \$15,000.00 U.S. dollars to have a fun vacation. However, when she gets to Florida she runs into and Aunt and Uncle who have a car accident and are hospitalized. To her dismay they don't have any Bluecross health insurance and she feels obligated to help them. Therefore, Frederica ends up owing No-mercy Gotcha Hospital \$5000. The hospital has some mercy and let's her owe them the money after they take down all her credit card information. She still enjoys her holiday! (10 marks)
 - a. How many Canadian dollars does she need to save for her trip?
 - b. How many Canadian dollars does she need to pay of the hospital bill?

Canadian Dollar Based Rates			
Bank Buying Rate	Country	Currency	Bank Selling Rate
0.003576	Greece	Drachma	0.005124
1.4215	United States	Dollar	1.4600

PLAR CHALLENGE PROCESS

Consumer Math Module 2 – continued

CALCULATIONS TABLE		
Portion Assessment	=	Portion % x Market Value
Property Tax Rate (as a %)	=	Total Revenue/Total Portioned Assessment = 100
General Municipal Tax	=	Total Portioned Assessment/1000 x Municipal Mill rate
Local Improvement Tax	=	Frontage x Cost of Improvement per foot of property frontage
Municipal Taxes	=	General Municipal tax + Local Improvement taxes
Education Taxes	=	Total Portioned Assessment/1000 x Education mill rate
General Municipal Tax	=	Total Portioned Assessment/1000 x Municipal mill rate
Municipal Taxes	=	General Municipal tax + Local Improvement taxes
Provincial Education Tax #1	=	Total Portioned Assessment/1000 x Provincial Education Tax #1 Mill rate
School Division Tax	=	Total Portioned Assessment/1000 x School Division Mill rate

Property Classification Codes in the Province of Manitoba

- 10 Residential 1 – Less than 5 dwelling units
- 20 Residential 2 – 5 or more dwelling units
- 30 Farm
- 40 Intentional
- 51 Statutory – Pipeline
- 52 Statutory – railway
- 60 Other
- 70 Golf Course
- 80 Residential 3 – Owner Occupied Condominiums and Co-op Housing

Portion of Property in the Province of Manitoba

Classification	2002
10 Residential	45%



PLAR CHALLENGE PROCESS

CONSUMER MATH MODULE 3

Please show all of your work!

Part A

Convert the following measurements.

a) 3 m = _____ mm

b) 46 mm = _____ m

c) .9 cm = _____ mm

d) 39 in. = _____ ft

e) 2 ft 7 in = _____ in

f) 1.8 yd = _____ in

g) 42 in = _____ ft _____ in

h) $\frac{3}{4}$ ft = _____ in

i) $\frac{3}{4}$ yd = _____ in

j) $5\frac{1}{2}$ ft = _____ in

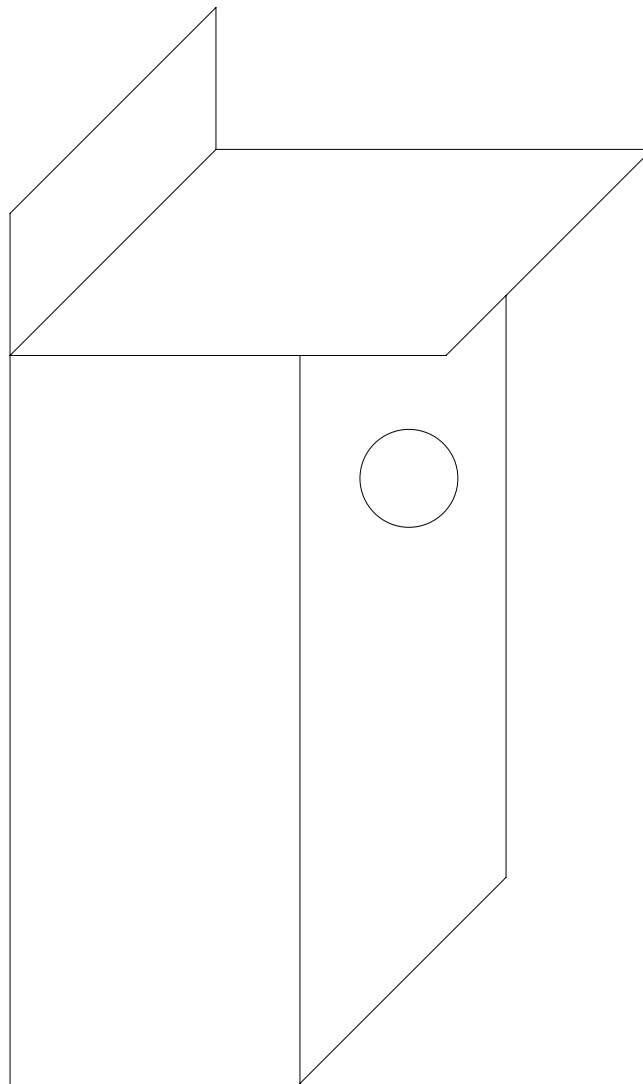
PLAR CHALLENGE PROCESS

Consumer Math Module 3 - continued

Part B

The diagram below is an oblique projection of a bird-nesting box. It has been drawn to a scale of 1:4 (Imperial measurement). Use this figure to answer the questions that appear on the following page. If calculations are involved, show your work.

(Measure to the nearest $\frac{1}{4}$ inch)





PLAR CHALLENGE PROCESS

Consumer Math Module 3 - continued

Answer questions using graph paper and lined paper.

1. Draw an exploded view of the bird-nesting box.
2. Using the imperial scale on your ruler, find the scale dimensions of the object.
3. Calculate the actual dimensions of the object.
4. Draw the constituent parts of the nesting box, using a scale of 1 in: 1 ft. Remember to label your diagram correctly.
5. Using $\frac{1}{4}$ inch graph paper, indicate how you would cut out the separate pieces for one nesting box from a sheet of plywood, 8 ft x 4 ft. When you lay out the pieces use a scale of 1 in : 1 ft.
6. Calculate the area of wood required to make one box.
7. How many boxes could be made from one sheet of plywood?
8. Find the cost of the wasted wood if one sheet of plywood costs \$24.00.

PLAR CHALLENGE PROCESS

CONSUMER MATH MODULE 4

1. A total of 3920 students write a university entrance examination. Josh achieves a score of 3339 out of 3750. There are 920 students who score lower than 3339. There are 64 students, including Josh, who score 3339.

a. Find Josh's percent score.

b. Find Josh's percentile rank.

c. Explain the difference between percent score and percentile rank.

Percentile rank formula

$$\frac{(B + 0.5E) \times 100}{n}$$

2. The average precipitation for the city of Vancouver (to the nearest mm) for the months of the year from 1969 to 1990 is the following.

Months	Average Monthly Precipitation (mm)
January	221
February	199
March	230
April	380
May	49
June	70
July	171
August	27
September	151
October	124
November	261
December	210

PLAR CHALLENGE PROCESS

Consumer Math Module 4 – continued

- Calculate the mean of the data.
- Calculate the range of the data.
- Calculate the standard deviation of the data using the following table.

Average Precipitation (x)	Difference From Mean $(x - \bar{x})^2$	Square of the Difference $(x - \bar{x})^2$
Sum of the Squares $\Sigma(x - \bar{x})^2$		

3. Consider the following five scatter plots involving student's results of two tests. (next page)

- Draw a line of best fit through the points.
- Match the type of correlation to the given scatter plots.
 - stronger positive correlation
 - weaker positive correlation
 - stronger negative correlation
 - weaker negative correlation
 - zero correlation



PLAR CHALLENGE PROCESS

Consumer Math Module 4 – continued

4. A manufacturer produces a washing machine whose life follows the normal distribution.
- Find the percent of washing machines with a life of less than 13 years.
 - Find the percent of washing machines with a life between 15.5 years and 25.5 years.
 - Find the percent of washing machines with a life greater than 23 years.
 - If 45,000 washing machines of the manufacturer are sold in a particular year find the number of washing machines with a life of greater than 20.5 years.
 - Is it possible for a washing machine to last longer than 28 years?



PLAR CHALLENGE PROCESS

CONSUMER MATH MODULE 5

- 1 Prepare a net worth statement for Zack Zeno Zimmerman. Zack has \$16,999.99 in his chequing account, \$14,550.99 in cash. He has \$2,166,445.99 invested in stocks and bonds and \$1,999,666.88 in a registered retirement pension plan and \$140,000.00 in mutual funds. Zack's home is valued at \$998,543.21 on which he owes \$410,000.99. He owes \$28,000 on his car, which is valued at \$45,000. Zack is a collector of hockey and assorted cards worth \$44,000.87 and he owes \$9,666.66 on his American Express. Zack also owes an alimony settlement payment of \$350,000.00.
 - Prepare a net worth statement for Zack. Use the net worth statement to complete this question.
 - Determine Zack's debt-equity ratio.
 - Is Zack's debt burden manageable? Explain.
 - If you were a financial planner, what advice would you offer Zack?

PLAR CHALLENGE PROCESS

Consumer Math Module 5 – continued

Statement of Net Worth Sheet

ASSETS (What you own)		
1 Liquid/Current Assets		
i Bank Accounts	\$	\$
ii Near Cash	\$	\$
Total Liquid Assets	\$	\$
2 Semi Liquid Assets		
i Mutual Funds	\$	\$
ii Stocks/Bonds	\$	\$
iii RRSP's	\$	\$
iv RPP's	\$	\$
Total Semi-Liquid Assets	\$	\$
3 Non-Liquid Assets		
i Principal Residence	\$	\$
ii Vehicles	\$	\$
iii Other	\$	\$
Total Non-Liquid Assets	\$	\$
Total Assets	\$	\$
LIABILITIES (What you owe)	\$	\$
4 Short-Term Debt		
i Credit Card Debt	\$	\$
ii Short-Term Loans	\$	\$
Total Short-Term Debt	\$	\$
5 Long-Term Debt		
i Mortgage	\$	\$
ii Other	\$	\$
Total Long-Term Debt	\$	\$
Total Liabilities	\$	\$

PLAR CHALLENGE PROCESS

Consumer Math Module 5 – continued

- 2 a) Complete the chart below and determine the total value of the stocks. Do not include broker's fees.

Stock	# of Shares	Price/Share	Price of Shares
Stock A	4500	\$ 4.50	
Stock B	999	\$ 26.78	
Stock C	39994	\$ 16.99	
Total			

- b) If stock A decreases by \$2.50, the value of Stock B decreases by \$1.35 and the value of Stock C increases by \$4.95, calculate the new value of each stock and the total portfolio value.

Stock	# of Shares	Price/Share	Change	New Price/Share	Price of Shares
Stock A	4500	\$ 4.50			
Stock B	999	\$ 26.78			
Stock C	39994	\$ 16.99			
Total					

- c) Find the percent gain or loss of the portfolio. (Round off to nearest tenth)

- d) Calculate the Brokers fees.

Stock A _____

Stock B _____

Stock C _____

Base charge or \$40.00 plus

- ✓ 0.08 cents per share for 1-500 shares
- ✓ 0.065 cents per share for 501-1000 shares
- ✓ 0.05 cents per share for 1001-2500 shares
- ✓ 0.04 cents per share for over 2500 shares

Show your work in the space below. Round of to the nearest second decimal place.



PLAR CHALLENGE PROCESS

Consumer Math Module 5 – continued

3 Complete the budget on the attached page with this information. The Putts family Budget.

- ✓ Mrs. Putts earns \$64,400.00
- ✓ Mr Putts earns \$41,548.00
- ✓ Investment income of \$17,732.00
- ✓ Their mortgage payment is \$1099.00/mth
- ✓ Car payment of \$798.00/mth
- ✓ Telephone \$161.00/mth
- ✓ Hydro \$163.00/mth
- ✓ Other utilities \$180.00/mth
- ✓ Cable \$75.00/mth
- ✓ Groceries \$1000.00/mth
- ✓ Clothing \$633.00/mth
- ✓ No car maintenance
- ✓ Gas \$182.00/mth
- ✓ Health and disability insurance \$275.00/mth
- ✓ Personal care \$644.00/mth
- ✓ Other expenses \$755.00
- ✓ Another group of expense that are \$211.00/mth

Plus, the Putts family has annual expenses of:

- ✓ Car insurance \$2800.00
- ✓ Life insurance \$1600.00
- ✓ Property Taxes \$5900.00
- ✓ Home insurance \$4900.00
- ✓ Vacation \$15000.00
- ✓ Newspaper & Periodicals \$195.00
- ✓ Other \$522.00

PLAR CHALLENGE PROCESS

Consumer Math Module 5 – continued

Budget Sheet

1) NET INCOME	WEEKLY	ANNUAL	AVERAGE MONTHLY INCOME
Primary Income	\$	\$	
Secondary Income	\$	\$	
Other Income.	\$	\$	
Total Income	\$	\$	
2) MONTHLY SAVINGS			
10% of Average Monthly Income	\$	\$	2) \$
3) MONTHLY EXPENSES		MONTHLY	
Mortgage of Rent			
Car Payment		\$	
Telephone		\$	
Hydro		\$	
Other Utilities		\$	
Cable		\$	
Groceries		\$	
Clothing		\$	
Car Maintenance		\$	
Gasoline		\$	
Health and Disability Insurance		\$	
Personal Care		\$	
Other		\$	
Other		\$	
TOTAL MONTHLY EXPENSES			
		MONTHLY	ANNUALLY
4) ANNUAL EXPENSES			
Car Insurance	\$	\$	
Life Insurance	\$	\$	
Property Taxes	\$	\$	
Home Insurance	\$	\$	
Vacations	\$	\$	
Newspaper & Periodicals	\$	\$	
Other	\$	\$	
TOTAL MONTHLY CONTRIBUTIONS			4) \$

PLAR CHALLENGE PROCESS

Consumer Math Module 5 – continued

SUMMARY		
1	AVERAGE MONTHLY INCOME	1) \$
2	SAVINGS	2)
3	TOTAL MONTHLY EXPENSES	3) \$
4	TOTAL MONTHLY CONTRIBUTIONS	4) \$
	TOTAL AMOUNTS 2+3+4	\$
5	AMOUNT AVAILABLE FOR OTHER SAVINGS OR EXPENDITURES (DEFICIT)	5) \$
Note: If a person is in a deficit position the budget needs to be analyzed for possible adjustments to spending.		

4. Draw a line from the term to the matching definition.

TERM

1. "Pay yourself first"
2. Equity investment
3. Mutual funds
4. Liquid assets
5. Liabilities
6. Brokerage fee
7. GIC's
8. Risk
9. Portfolio
10. Maturity date

DEFINITION

- Assets that are easily turned into money
- Investments that guarantee a set rate of return
- Stuff that you don't own or money you owe
- The odds of a person losing money on an investment
- An investors inventor
- Investing in the ownership of a company
- A group of stock generating revenue together
- When a treasury bill can be cashed in
- Put 10% into investment or savings before paying anything else
- Money paid to a financial manager



PLAR CHALLENGE PROCESS

CONSUMER MATH MODULE 6

Career Life Project

For the career life project there are four main components that a student needs to have and be competent in doing.

1. Have a resume that is current and written to acceptable industry standards. You must be able to write a resume also
2. Student must be competent in producing and acceptable cover letter.
3. Have document that prove an extensive career search. For example: documents provide by Employment Insurance when they help a student do a education and career plan.
4. Student must be competent in producing a budget that will show the income and expenses of a first year in a post secondary institution.

In conclusion: If a student has these four components and the matching skills than the teacher could do a PLAR for this section of the course.

CONSUMER MATH MODULE 7

Income Tax

For income tax, if a student is able to do their own income tax and can successfully complete the student workbook published by Revenue Canada. The student could PLAR this Module.

PLAR CHALLENGE PROCESS

CONSUMER MATH MODULE 8

1. True or False – Check (✓) the correct answer

True	False	
		The graph of a direct squared variation passes through the point $(0,0)$.
		In the formula $d = 10t$, the variable d is the independent variable.
		The graph of a partial variation is a straight line.
		In an inverse variation, as the independent variable increases, the dependent variable decreases.
		The relation expressed by the formula $d = 10/t$ is known as a partial variation.
		The graph of a direct squared variation is a straight line.
		In the formula $d = 10/t$, when $t = \frac{1}{2}$, the value of $d = 5$.
		The graph of the direct squared variation and the inverse direction are both curves.
		Not all the graphs of direct variations are straight lines.
		The main difference in the graphs of a direct variation and a partial variation is that the partial variation does not pass through the point $(0,0)$.
		In a direct squared variation, as the independent variable increases, the dependent variable decreases
		The graph of an inverse variation passes through the point $(0,0)$.

Short answer questions:

2. Bobby Hill is a saleswoman. Her base monthly salary is \$1000.00 plus a commission of 12% on her sales.
- Identify the type of relation that exists between her monthly salary and her sales.
 - Identify the independent and dependent variables.
 - Express this variation as a formula. Choose suitable letters to represent the variable.
 - Determine the saleswoman's monthly salary if she sells \$100,000.00 worth of goods in a month.



PLAR CHALLENGE PROCESS

Consumer Math Module 8 – continued

3. A restaurant charges a fixed amount for a large pizza, plus an amount for each topping. The cost for a pizza with 2 toppings is \$13.99 while the cost for a pizza with 5 toppings is \$16.54.
 - a) Identify the type of variation that exists between the cost of the pizza and the number of toppings.
 - b) Express the variation as a formula.
 - c) Find the cost of a 7 topping pizza.

4. The gas efficiency of a car (d) in km/L is inversely proportional to the mass (m) of the car. The gas efficiency of a mid-size car with a mass of 1200 kg is 8 km/L. Find the gas efficiency of a compact car with a mass of 650 kg. Round of to the nearest hundredth.

5. Bobby Hill is a saleswoman. Her base monthly salary is \$1000.00 plus a commission of 12% on her sales.
 - a) Identify the type of relation that exists between her monthly salary and her sales.
 - b) Identify the independent and dependent variables.
 - c) Express this variation as a formula. Choose suitable letters to represent the variable.
 - d) Determine the saleswoman's monthly salary if she sells \$100,000.00 worth of goods in a month.

6. A restaurant charges a fixed amount for a large pizza, plus an amount for each topping. The cost for a pizza with 2 toppings is \$13.99 while the cost for a pizza with 5 toppings is \$16.54.
 - a) Identify the type of variation that exists between the cost of the pizza and the number of toppings.
 - b) Express the variation as a formula.
 - c) Find the cost of a 7 topping pizza.

7. The gas efficiency of a car (d) in km/L is inversely proportional to the mass (m) of the car. The gas efficiency of a mid-size car with a mass of 1200 kg is 8 km/L. Find the gas efficiency of a compact car with a mass of 650 kg. Round of to the nearest hundredth.

PLAR CHALLENGE PROCESS

Consumer Math Module 8 – continued

8. The following table of values expresses the relation between the length (l) of a pendulum in metres and the time (t) it takes for 1 swing in seconds.

Speed in m/s (s)	2	5	10	15	16
Time in seconds (t)	200	80	40	26.6	25

- a) Name the independent variable. Name the dependent variable.
- b) Express the variation as a graph. Choose appropriate scales for the co-ordinates axes.
- c) Identify the type of variation.
- d) Find the constant of variation.
9. a) Change the temperature from Fahrenheit to Celsius.
- 40 degrees Fahrenheit
 - 95 degrees Fahrenheit
- b) Change the temperature from Celsius to Fahrenheit.
- 40 degrees Celsius
 - 35 degrees Celsius



THE NEXT STEPS

Now that you are confident in proceeding with the challenge process for Senior 4 Consumer Math, it is time to apply for and complete the challenge assessment.

1. Complete an application at your adult learning centre.
2. After your application has been processed, you will be contacted with the date and time available for you to complete your PLAR assessment.
3. Once you have committed to that date, you are responsible for completing your evaluation/testing.
4. You will receive written notification of your PLAR results.