## Using a Financial Calculator

Much of personal finance involves either determining how much you need to save to meet a future financial goal, or determining how big your payments will be on money you borrowed today. All this finds its roots in Axiom 2: The Time Value of Money. In fact, there is very little in personal finance that does not have some thread of the time value of money woven through it. With an understanding of the time value of money, we can compare dollar values from different periods.

With just a little time and effort, you will be surprised how much you can do with a calculator, such as stripping away the effects of inflation and seeing what future cash flows are worth in today's dollars or what rate of return you are earning on an investment or paying on a loan.

In demonstrating how calculators make your work easier, you must first decide which calculator to use. The options are numerous and largely depend upon personal preference. We have chosen the Texas Instruments BA-II Plus.

In the examples that follow, you are told (1) which keystrokes to use, (2) the resulting appearance of the calculator display, and (3) a supporting explanation.

The keystrokes column tells you which keys to press. The keystrokes shown in an un-shaded box tell you to use one of the calculator's dedicated, or "hard," keys. For example: if $+/-$ is shown in the keystrokes instruction column, press that key on the keyboard of the calculator. To use a function printed in gray lettering above a dedicated key, always press the gray $\mathbf{2 n d}$ key first, then the function key.

Here's what's coming:
Important Starting Point
Basic Time Value of Money Calculations
A. Future Value
B. Present Value
C. Future Value of an Annuity
D. Present Value of an Annuity

Loans
A. Calculating the APR
B. Calculating the monthly payment of a fixed-rate loan and the loan amortization

Calculating Future Values with Monthly Payments (Compound Sum)
Calculating the Number of Payments or Receipts
Calculating the Payment Amount

Calculating the Interest Rate

Bond Valuation
A. Computing the value of a bond
B. Computing the yield to maturity of a bond

## AN IMPORTANT STARTING POINT

Example: You want to display four numbers to the right of the decimal.
Keystrokes Display Explanation
$2^{\text {nd }}$
Format $\quad \mathrm{DEC}=$
$4 \quad$ Enter $\quad$ DEC $=4.0000$
Sets display to show four numbers to the right of the decimal

## $\mathbf{C E} / \mathbf{C E}$ CE $\quad 0.0000 \quad$ Clears display

Example: You want to set two payments per year to be paid at the end of the period.
Keystrokes
Display
Explanation
$2^{\text {nd }}$

P/Y
$\mathrm{P} / \mathrm{Y}=$

2 Enter
$\mathrm{P} / \mathrm{Y}=2.0000$
Sets number of payments per year at 2

| BGN | END | Sets timing of payment at the end of each period |
| :--- | :---: | :--- |
| CE/C | CE/C | 0.0000 |
| BASIC TIME VALUE OF MONEY CALCULATIONS |  |  |

A. The future value (Appendix A)

Example: Calculate the future value of $\$ 100$ invested for 5 years at $12 \%$ interest rate.
Keystren
$\mathbf{2}^{\text {nd }}$
$\mathbf{P} / \mathbf{Y}$
1 Enter P/Y = $1.0000 \quad$ Sets number of payments per year at 1
$2^{\text {nd }}$

| BGN | END | Sets timing of payments at the end of each period |  |
| :--- | :--- | :--- | :--- |
| CE/C CE/C | 0.0000 | Clears display |  |
| $\mathbf{2}^{\text {nd }}$ |  |  |  |
| CLR TVM | 0.0000 | Clears TVM variables |  |
| 100 | $+/-$ | PV $=-100.0000$ | Stores initial $\$ 100$ as a negative present value. <br> Otherwise the answer will appear as a negative. |

## PV

5

$$
\mathbf{N} \quad \mathrm{N}=5.0000
$$

Stores number of periods
I/Y
$\mathrm{I} / \mathrm{Y}=12.0000$
Stores interest rate

CPT FV
$F V=176.2342$
Calculates the future value

## BASIC TIME VALUE OF MONEY CALCULATIONS (continued)

B. The present value (Appendix B)

Example: How much would you have to deposit in the bank today if you wanted it to grow to $\$ 8,000$ in 8 years, earning $10 \%$ compounded annually?

| Keystrokes |  | Display | Explanation |
| :---: | :---: | :---: | :---: |
| $2^{\text {nd }}$ |  |  |  |
| P/Y |  | $\mathrm{P} / \mathrm{Y}=$ |  |
| 1 | Enter | $\mathrm{P} / \mathrm{Y}=1.0000$ | Sets number of payments per year at 1 |
| $2^{\text {nd }}$ |  |  |  |
| BGN |  | END | Sets timing of payments at the end of each period |
| CE/C | CE/C | 0.0000 | Clears display |
| $2^{\text {nd }}$ |  |  |  |
| CLR | TVM | 0.0000 | Clears TVM variables |
| 8000 | FV | $\mathrm{FV}=8000.0000$ | Stores future amount to be received |
| 8 | N | $\mathrm{N}=8.0000$ | Stores number of periods |
| 10 | I/Y | $\mathrm{I} / \mathrm{Y}=10.0000$ | Stores interest rate |
| CPT | PV | $\mathrm{PV}=3,732.0590$ | Calculates the present value, which will be negative indicating a cash outflow |

C. The future value of an annuity (Appendix C)

Example: What is the future value of $\$ 1,000$ deposited at the end of each year for 15 years in an account earning $8 \%$ compounded annually?

Keystrokes Display Explanation
$2^{\text {nd }}$

## P/Y

1 Enter $\mathrm{P} / \mathrm{Y}=1.0000 \quad$ Sets number of payments per year at 1
$2^{\text {nd }}$

| BGN | END | Sets timing of payments a |  |
| :--- | :--- | :--- | :--- |
| CE/C | CE/C | 0.0000 | Clears display |
| $\mathbf{2}^{\text {nd }}$ |  | 0.0000 | Clears TVM variables |
| CLR | TVM | PMT $=1,000.0000$ | Stores annual payment (an <br> number. Otherwise the ans <br> negative. |
| 1000 | $+/-$ | $\mathrm{N}=15.0000$ | Stores number of periods |
| 15 | $\mathbf{N}$ | $\mathrm{I} / \mathrm{Y}=8.0000$ | Stores interest rate |
| 8 | I/Y | FV $=27,152.1139$ | Calculates future value |

D. The present value of an annuity (Appendix D)

Example: What is the present value of an annuity of $\$ 500$ per year for 12 years at $9 \%$ annual interest rate?

| Keystrokes | Display | Explanation |
| :--- | :--- | :--- |
| $\mathbf{2}^{\text {nd }}$ |  |  |
| P/Y | $\mathrm{P} / \mathrm{Y}=$ |  |
| 1 | Enter | $\mathrm{P} / \mathrm{Y}=1.0000$ |$\quad$ Sets number of payments per year at 1.

$\mathbf{C E} / \mathbf{C E}^{\mathbf{C E}} \quad \mathbf{C} \quad 0.0000 \quad$ Clears display

## $2^{\text {nd }}$

| CLR | TVM | 0.0000 | Clears $T V M$ variables |
| :--- | :--- | :--- | :--- |
| 500 | $+/-$ | PMT $=500.0000$ | Stores annual payment (annuity) as a negative <br>  |
|  |  | number. Otherwise the answer will appear as a <br> negative. |  |

PMT
$12 \mathbf{N} \quad \mathrm{~N}=12.0000 \quad$ Stores number of periods
$9 \quad \mathrm{I} / \mathrm{Y} \quad \mathrm{I} / \mathrm{Y}=9.0000 \quad$ Stores interest rate
CPT PV
$\mathrm{PV}=3,580.3626$
Calculates the present value

## LOANS

A. Calculating the APR

Example: Determine the annual percentage rate (APR) on a \$6,000, 4-year (48-month) loan with monthly payments of $\$ 188$.

| Keystrokes | Display | Explanation |
| :--- | :--- | :--- |
| $\mathbf{2}^{\text {nd }}$ |  |  |
| BGN | END | Sets timing of payments at the end of each period |
| $\mathbf{2}^{\text {nd }}$ |  |  |
| $\mathbf{P} / \mathbf{Y}$ | $\mathrm{P} / \mathrm{Y}=$ |  |
| 12 | Enter | $\mathrm{P} / \mathrm{Y}=12.0000$ |


| CE/C | CE/C | 0.0000 | Clears display |
| :---: | :---: | :---: | :---: |
| $2^{\text {nd }}$ |  |  |  |
| CLR | TVM | 0.0000 | Clears TVM variables |
| 48 | N | $\mathrm{N}=48.0000$ | Sets $n$, the number of months for the investment |
| 6000 | PV | $\mathrm{PV}=6,000.0000$ | Stores $P V$, the present value, which is the amount of the loan |
| 188 | +/- | $\mathrm{PMT}=188.0000$ | Stores $P M T$, the monthly payment (with a minus sign for cash paid out) |
| PMT |  |  |  |
| CPT | I/Y | $\mathrm{I} / \mathrm{Y}=21.6813$ | Calculates $i$, which is the loan's APR |

B. Calculating the monthly payment on a fixed-rate loan and the loan amortization (the amount going toward principal and interest)

1. Example: What would be the monthly payment on a 15 -year, $\$ 110,000$ loan at a fixed rate of 8.5\%?

| Keystrokes | Display | Explanation |
| :--- | :--- | :--- |
| $\mathbf{2}^{\text {nd }}$ |  |  |
| BGN | END | Sets timing of payments at the end of each period |
| $\mathbf{2}^{\text {nd }}$ |  |  |
| $\mathbf{P} / \mathbf{Y}$ | $\mathrm{P} / \mathrm{Y}=$ |  |
| $12 \quad$ Enter | $\mathrm{P} / \mathrm{Y}=12.0000$ | Sets 12 payments per year |
| CE/C CE/C | 0.0000 | Clears display |
| $\mathbf{2}^{\text {nd }}$ |  |  |


| CLR TVM | 0.0000 | Clears TVM variables |  |
| :--- | :--- | :--- | :--- |
| 180 | $\mathbf{N}$ | $\mathrm{~N}=180.0000$ | Sets $n$, the number of months for the inv <br> years $\mathrm{x} 12 \mathrm{months} / \mathrm{year}=180 \mathrm{months})$ |
| 110000 | $\mathbf{P V}$ | $\mathrm{PV}=110,000.0000$ | Stores $P V$, the present value, which is the <br> the loan |
| 8.5 | $\mathrm{I} / \mathrm{Y}$ | $\mathrm{I} / \mathrm{Y}=8.5000$ | Stores $i$, the annual interest rate |
| CPT | PMT | $\mathrm{PMT}=21,083.2135$ | Calculates $P M T$, the monthly payment <br> on the loan (with a minus sign for cash <br> paid out) |

B. Calculating the monthly payment on a fixed-rate loan and the loan amortization (the amount going toward principal and interest)

Continuing with this example:
2. Example: On the sixtieth payment, what amount on the monthly payment goes toward interest and principal, and what is the unpaid balance on the loan?
Keystrokes Display Explanation
$2^{\text {nd }}$

| Amort |  |  |
| :--- | :--- | :--- |
| Enter P1 $=60.0000$ Sets beginning payment at 60 <br> $\downarrow$   <br> 60 Enter $\mathrm{P} 2=60.0000$ | Sets ending payment at 60 |  |
| $\downarrow$ | $\mathrm{BAL}=87,366.0124$ | Calculates the unpaid balance when <br> payment 60 is made |
| $\downarrow$ |  | PRN $=-461.1048$ |
|  | Calculates the portion of payment 60 <br> that goes toward the principal |  |

B. Calculating the monthly payment on a fixed-rate loan and the loan amortization (the amount going toward principal and interest)

Continuing further with this example:
2. Example: Now you want to determine what portion of the total of your first 60 payments went toward interest and what portion went toward principal.

| Keystrokes | Display | Explanation |
| :--- | :--- | :--- |
| $2^{\text {nd }}$ |  |  |

## Amort

| 1 | Enter | $\mathrm{P} 1=1.0000$ | Sets beginning payment at 1 |
| :---: | :---: | :---: | :---: |
| 60 | Enter | $\mathrm{P} 2=60.0000$ | Sets ending payment at 60 |
| $\downarrow$ |  | BAL $=87,366.0124$ | Calculates the unpaid balance when payment 60 is made |
| $\downarrow$ |  | PRN $=22,633.9876$ | Calculates the portion of the first 60 payments that went toward the principal |
| $\downarrow$ |  | $\mathrm{INT}=42,358.8224$ | Calculates the portion of the first 60 payments that went toward the interest |

## CALCULATING FUTURE VALUES WITH MONTHLY PAYMENTS (COMPOUND SUM)

Example: If you deposit $\$ 300$ a month (at the beginning of each month) into a new account that pays $6.25 \%$ annual interest, compounded monthly, how much will you have in the account after 5 years?

| Keystrokes |  | Display | Explanation |
| :---: | :---: | :---: | :---: |
| $2^{\text {nd }}$ |  |  |  |
| BGN |  | END | Sets timing of payments at the end of each period |
| $2^{\text {nd }}$ |  |  |  |
| SET |  | BGN | Sets timing of payments to beginning of each period |
| $2^{\text {nd }}$ |  |  |  |
| P/Y |  | $\mathrm{P} / \mathrm{Y}=$ |  |
| 12 | Enter | $\mathrm{P} / \mathrm{Y}=12.0000$ | Sets 12 payments per year |
| CE/C | CE/C | 0.0000 | Clears display |
| $2^{\text {nd }}$ |  |  |  |
| CLR | TVM | 0.0000 | Clears TVM variables |
| 60 | N | $\mathrm{N}=60.0000$ | Stores $n$, the number of months for the investment |
| 6.25 | I/Y | $\mathrm{I} / \mathrm{Y}=6.2500$ | Stores $i$, the annual interest rate |
| 300 | +/- | PMT $=-300.0000$ | Stores $P M T$, the monthly amount invested (with a minus sign for cash paid out) |
| PMT |  |  |  |
| CPT |  | $\mathrm{FV}=21,175.7613$ | Calculates the future value after 5 years |
| CALCULATING THE NUMBER OF PAYMENTS OR RECEIPTS |  |  |  |
| Example: If you wish to retire with $\$ 500,000$ saved, and can only afford payments of $\$ 500$ at the beginning of each month, how long will you have to contribute toward your retirement if you can earn a $10 \%$ return on your contribution? |  |  |  |
| Keystr | rokes | Display | Explanation |


| BGN |  |  | BGN | Verifies timing of payment at the beginning of each period |
| :---: | :---: | :---: | :---: | :---: |
| $2^{\text {nd }}$ |  |  |  |  |
| P/Y |  |  | $\mathrm{P} / \mathrm{Y}=$ |  |
| 12 | Enter |  | $\mathrm{P} / \mathrm{Y}=12.0000$ | Sets 12 payments per year |
| CE/C | CE/C |  | 0.0000 | Clears display |
| $2^{\text {nd }}$ |  |  |  |  |
| CLR | TVM |  | 0.0000 | Clears TVM variables |
| 10 | I/Y |  | $\mathrm{I} / \mathrm{Y}=10.0000$ | Stores $i$, the interest rate |
| 500 | +/- |  | $\mathrm{PMT}=500.0000$ | Stores $P M T$, the monthly payment invested (with a minus sign for cash paid out) |
| 500000 |  | FV | $F V=500,000.0000$ | Stores $F V$, the value we want to achieve |
| CPT | N |  | $\mathrm{N}=268.2539$ | Calculates the number of months (because we considered monthly payments) required to achieve our goal |

## CALCULATING THE PAYMENT AMOUNT

Example: Suppose your retirement needs were $\$ 750,000$. If you are currently 25 years old and plan to retire at age 65 , how much will you have to contribute at the beginning of each month for retirement if you can earn $12.5 \%$ on your savings?

## Keystrokes

Display

## Explanation

| BGN |  |  | BGN | Verifies timing of payment at the beginning of each period |
| :---: | :---: | :---: | :---: | :---: |
| $2^{\text {nd }}$ |  |  |  |  |
| P/Y |  |  | $\mathrm{P} / \mathrm{Y}=12.0000$ |  |
| 12 | Enter |  | $\mathrm{P} / \mathrm{Y}=12.0000$ | Sets 12 payments per year |
| CE/C | CE/C |  | 0.0000 | Clears display |
| CLR | TVM |  | 0.0000 | Clears TVM variables |
| 12.5 | I/Y |  | $\mathrm{I} / \mathrm{Y}=12.5000$ | Stores $i$, the interest rate |
| 480 | N |  | $\mathrm{N}=480.0000$ | Stores $n$, the number of periods until we stop contributing ( 40 years x 12 months/year $=480$ months) |
| 750000 |  | FV | $\mathrm{FV}=750,000.0000$ | Stores the value we want to achieve |
| CPT | PMT |  | $\mathrm{PMT}=253.8347$ | Calculates the monthly contribution required to achieve our ultimate goal (shown as a negative because it represents cash paid out) |

## CALCULATING THE INTEREST RATE

Example: If you invest $\$ 300$ at the end of each month for 6 years ( 72 months) for a promised $\$ 30,000$ return at the end, what interest rate are you earning on your investment?

## Keystrokes <br> Display <br> Explanation

$2^{\text {nd }}$

| BGN |  | BGN | Sets timing of payments to beginning of each period |
| :---: | :---: | :---: | :---: |
| $2^{\text {nd }}$ |  |  |  |
| SET |  | END | Sets timing of payments to end of each period |
| $2^{\text {nd }}$ |  |  |  |
| P/Y |  | $\mathrm{P} / \mathrm{Y}=$ |  |
| 12 | Enter | $\mathrm{P} / \mathrm{Y}=12.0000$ | Sets 12 payments per year |
| CE/C | CE/C | 0.0000 | Clears display |
| CLR | TVM | 0.0000 | Clears TVM variables |
| 72 | N | $\mathrm{N}=72.0000$ | Stores $n$, the number of deposits (investments) |
| 300 | +/- | PMT $=-300.0000$ | Stores $P M T$, the monthly amount invested (with a minus sign for cash paid out) |
| 30000 | FV | $\mathrm{FV}=30,000.0000$ | Stores the future value to be received in 6 years |
| CPT | I/Y | $\mathrm{N}=10.5892$ | Calculates the annual interest rate earned on the investment |

## BOND VALUATION

A. Computing the value of a bond

Example: What is the value of a bond that matures in 10 years and has a coupon rate of $9 \%$ ( $4.5 \%$ semiannually)? Your required rate of return is $12 \%$.

| BGN |  | END | Verifies timing of payments to end of each period |
| :---: | :---: | :---: | :---: |
| $2^{\text {nd }}$ |  |  |  |
| P/Y |  | $\mathrm{P} / \mathrm{Y}=$ |  |
| 2 | Enter | $\mathrm{P} / \mathrm{Y}=2.0000$ | Sets 2 payments per year and mode (END) assumes cash flows are at the end of each 6-month period |
| CE/C | CE/C | 0.0000 | Clears display |
| $2^{\text {nd }}$ |  |  |  |
| CLR | TVM | 0.0000 | Clears TVM variables |
| 20 | N | $\mathrm{N}=20.0000$ | Stores the number of semiannual periods (10 years x 2) |
| 12 | I/Y | $\mathrm{I} / \mathrm{Y}=12.0000$ | Stores annual rate of return |
| 45 | PMT | PMT $=45.0000$ | Stores the semiannual interest payment |
| 1,000 | FV | $\mathrm{FV}=1,000.0000$ | Stores the bond's maturity or par value |
| CPT | PV | $P V=-827.9512$ | Calculates the value of the bond, expressed as a negative number |

## BOND VALUATION (continued)

B. Computing the yield to maturity

Example: What is the yield to maturity on a bond that matures in 8 years and has a coupon rate of $12 \%$ ( $6 \%$ semiannually)? The bond is selling for $\$ 1,100$.
Keystrokes Display Explanation
$2^{\text {nd }}$

## BGN <br> $2^{\text {nd }}$

P/Y

2 Enter $\mathrm{P} / \mathrm{Y}=2.0000$

CE/C $\quad \mathbf{C E} / \mathbf{C} \quad 0.0000$
$2^{\text {nd }}$

| CLR | TVM | 0.0000 |
| :--- | :--- | :--- |
| 16 | $\mathbf{N}$ | $\mathrm{~N}=16.0000$ |
| 1100 | $+/-$ | $\mathrm{PV}=-1,100.0000$ |

Verifies timing of payment to end of each period

Sets 2 payments per year and mode (END) assumes cash flows are at the end of each 6-month period Clears display

Clears TVM variables

Stores the number of semiannual periods (8 years x 2)

Stores the value of the bond, expressed as a negative number

PV
60 PMT PMT $=60.0000 \quad$ Stores the semiannual interest payment
1,000 FV $\quad \mathrm{FV}=1,000.0000$
Stores the bond's maturity or par value

CPT I/Y $\quad \mathrm{I} / \mathrm{Y}=10.1451$

Calculates the yield to maturity, expressed on an annual basis

## WORKSHEETS

These financial planning worksheets provide you with the opportunity to develop and implement your own financial plan. Many of them are taken directly from figures within the text; others are checklists or worksheets not provided within the text. As you experience personal and financial changes in your life, you have got to revise your financial plan. That means that you will be reworking these worksheets many times over throughout your life. Unfortunately, many people work themselves into a financial corner that is much easier to avoid than it is to get out of. These worksheets provide some guidance so you can avoid the pitfalls.

Once you have developed a plan, keep in mind that it is even more important to implement and actually stick to that plan. That means using common sense and moderation. Remember, your financial plan is not the goal; it is the tool you use to achieve your goal. Think of your plan as a road map. Your destination may change, and you may get lost or even go down a few dead ends, but if your road map is good enough, you will always find your way again.

Worksheet 1 Personal Financial Goals Worksheet
Worksheet 2 Job Search Worksheet

Worksheet 3 Balance Sheet - Calculating Your Net Worth
Worksheet 4 The Budget-Tracker: Personal Income Statement Worksheet

Worksheet 5 Storing Financial Files

Worksheet 6 Determining Your Net Worth

Worksheet 7 A Simplified Income Statement
Worksheet 82001 Federal Tax Rates

Worksheet 9 T-1 General Tax Form, 2001

Worksheet 10 Calculating Your Federal Income Tax

Worksheet 11 Choosing a Financial Institution

Worksheet 12 Balancing Your Chequing Account

Worksheet 13 Eliminating Credit Card Debt
Worksheet 14 Using the Rule of 78s
Worksheet 15 Credit Evaluation Worksheet

Worksheet 16 Before You Buy

Worksheet 17 Buying a Used Vehicle

Worksheet 18 Tips on Buying a New Car
Worksheet 19 Leasing May Make Sense If...
Worksheet 20 The Lease versus Purchase Decision

Worksheet 21 Monthly Mortgage Payments Required to Repay a \$10,000 Loan with Different Interest Rates and Different Maturities

Worksheet 22 Worksheet for the Rent versus Buy Decision
Worksheet 23 Worksheet for Calculating the Maximum Monthly Mortgage Payment and Mortgage Size for Which You Can Qualify

Worksheet 24 Worksheet for Estimating Life Insurance Needs

Worksheet 25 Questions to Ask Potential Insurance Agents

Worksheet 26 Should You Buy Life Insurance?

Worksheet 27 Worksheet for Health Care Insurance

Worksheet 28 Ways to Lower Your Home Insurance Costs
Worksheet 29 Long-Term Health Care Provisions
Worksheet 30 Estimating Disability Insurance Coverage

Worksheet 31 A Checklist for Homeowner's Insurance
Worksheet 32 Common Automobile Insurance Discounts

Worksheet 33 Insurance Tracker
Worksheet 34 Investments and Property Inventory
Worksheet 35 Picking an Investment Dealer
Worksheet 36 Buying a Mutual Fund
Worksheet 37 Worksheet for Funding Your Retirement Needs
Worksheet 38 Your Company's Pension Plan
Worksheet 39 Estate Planning Process
Worksheet 40 Estate Planning Worksheet
Worksheet 41 Safety Deposit Box Information

## WORKSHEET 1: Personal Financial Goals Worksheet (Page 7, Chapter 1)

Make sure your goals are realistic and stated in specific, measurable terms. In addition, prioritize your goals and identify a specific time frame within which you would like to accomplish them. The listing below is not meant to be all-inclusive, but merely to provide a framework within which goals can be formalized.

## Short-Term Goals (less than 1 year)

## Goal

Priority
Desired

Accumulate emergency funds equal to 3 months' living expenses
Pay off outstanding bills
Pay off outstanding credit cards
Purchase adequate property, health, disability, and liability insurance
Purchase a major item
Finance a vacation or some other entertainment item
Other short-term goals (specify)

## Intermediate-Term Goals (1 to 10 years)

Save funds for college for an older child
Save for a major home improvement
Save for a down payment on a house
Pay off outstanding major debt
Finance very large items (weddings)
Purchase a vacation home or time-share unit
Finance a major vacation (overseas)
Other intermediate-term goals (specify)

## Long-Term Goals (greater than 10 years)

Save funds for college for a young child
Purchase a second home for retirement
Create a retirement fund large enough
to supplement your pension so that
you can live at your current standard
Take care of your parents after they retire
Start your own business
Other long-term goals (specify)

## WORKSHEET 2: Job Search Worksheet (Page 12, Chapter 1)

The Search (Complete items 1 to 3 on this
checklist before starting your job search.)

1. IDENTIFY OCCUPATIONS
• Make a background and experience list.
• Review information on jobs.
• Identify jobs that use your talents.
2. IDENTIFY EMPLOYERS

- Ask relatives and friends to help you look for job openings.
- Go to your local Department of Human Resources Development Canada offices for
assistance.
• Contact employers to get company and job information.

3. PREPARE MATERIALS
• Write résumés (if needed). Use job announcements to
"fit" your skills with job requirements.

- Write cover letters or letters of application.
The Daily Effort

4. CONTACT EMPLOYERS
• Call employers directly (even if they're not advertising openings).
Talk to the person who would supervise you if you were hired.
Make note of names.
• Go to companies to fill out applications.
• Contact your friends and relatives to see if they know about
any openings.

The Interview (Complete items 5 to 8 when you have interviews.)
5. PREPARE FOR INTERVIEWS

- Learn about the company you're interviewing with.
- Review job announcements to determine how your skills will help you do the job.
- Assemble résumés, application forms, etc.
(make sure everything is neat).

6. GO TO INTERVIEWS

- Dress right for the interview.
- Go alone.
- Be neat, concise, and positive.
- Thank the interviewer.

7. EVALUATE INTERVIEWS

- Send a thank-you note to the interviewer within

24 hours of the interview.

- Think about how you could improve the interview.


## 8. TAKE TESTS

- Find out about the test(s) you're taking.
- Brush up on job skills.
- Relax and be confident.


## 9. ACCEPT THE JOB!

- Get an understanding of job duties and expectations, work hours, salary, benefits, and so on.
- Be flexible when discussing salary (but don't sell yourself short).
- Congratulations!


## WORKSHEET 3: Balance Sheet-Calculating Your Net Worth (Chapter 2, Page 35)

| Assets |  | Value |
| :---: | :---: | :---: |
|  | Cash |  |
|  | Chequing | + |
|  | Savings/CDs | + |
|  | Money Market Funds | + |
|  | Other Monetary Assets | + |
| A. | Monetary Assets | A. $=$ |
|  | Mutual Funds |  |
|  | Stocks | + |
|  | Bonds | + |
|  | Life Insurance (cash-value) | + |
|  | Cash Value of Annuities | + |
|  | Investment Real Estate (REITs, partnerships) | + |
|  | Other Investments | + |
| B. | Investments | B. $=$ |
|  | Company Pension |  |
|  | RRSP | + |
|  | Other Retirement Plans | + |
| C. | Retirement Plans | C. $=$ |
|  | Primary Residence |  |
|  | 2nd Home | + |
|  | Time-Shares/Condominiums | + |
|  | Other Housing | + |
| D. | Housing (market value) | D. $=$ |
|  | Automobile 1 |  |
|  | Automobile 2 | + |
|  | Other Automobiles | + |
| E. | Automobiles | E. $=$ |
|  | Collectibles |  |
|  | Boats | + |
|  | Furniture | + |
|  | Other Personal Property | + |
| F. | Personal Property | F. $=$ |
|  | Money Owed You |  |
|  | Market Value of Your Business | + |
|  | Other | + |
| G. | Other Assets | G. $=$ |
| H. | Total Assets (add lines A through G) | H. = |

## Liabilities or Debts

I. Current Bills (unpaid balance)

Visa
MasterCard
Other Credit Cards
J. Credit Card Debt

First Mortgage
2nd Home Mortgage +
Home Equity Loan
Other Housing Debt +
K. Housing

Automobile 1
Automobile 2
Other Automobile Loans
L. Automobile Loans

University/College Loans
Loans on Life Insurance Policies
Bank Loans
Installment Loans
Other
M. Other Debts
N. Total Debt (add lines I through M)

## Net Worth

H. Total Assets
N. Less: Total Debt
O. Equals: Net Worth
H. +
N. -
O. =
$+$
$\mathrm{K} .=$
L. $=$
$+$
Value
I. $=$
$+$
$+$
J. $=$
$+$
$+$
$+$
$+$
$+$
M. $=$
N. $=$

## WORKSHEET 4: The Budget Tracker: Personal Income Statement Worksheet (Chapter

2, Page 40)


## TRANSPORTATION

Automobile Purchase
$+\quad$ Automobile Payments

```
+ Gas, Parking, etc.
+ Registration
+ Repairs
+ Other Transportation Expenses
= G. Total Transportation Expenditures
    RECREATION
        Movies, Theatre, Sporting Events
+ Club Memberships
+ Vacations
+ Hobbies
+ Sporting Goods
+ Gifts
+ Reading Materials (books, newspapers, magazines)
+ Other Recreation Expenses (Big screen TV payments)
= H. Total Recreation Expenditures
    MEDICAL EXPENDITURES
        Dental
+ Vision care
+ Prescription Drugs and Other Medical
= I. Total Medical Expenditures
    INSURANCE EXPENDITURES
    Registered Retirement Savings Plan Contributions
+ Health Insurance Premiums
+ Life Insurance
+ Automobile Insurance
+ Disability Insurance
+ Liability and Home Insurance
= J. Total Insurance Expenditures
    OTHER EXPENDITURES
        Student Loan Payments
        Child Care
        Other Expenses
    K. Total Other Expenditures
    L. Total Living Expenditures
    (add lines D through K)
    M. Income Available for Savings
    (line C minus line L)
```


## WORKSHEET 5: STORING FINANCIAL FILES (Chapter 2,Page 48)

LONG-TERM OR PERMANENT STORAGE (KEEP AT HOME IN A FILE CABINET OR SAFE SPOT)

Tax Records (MAY BE DISCARDED AFTER 6 YEARS)
Tax returns
Paycheques
T-4 forms
T-4A forms
T-5 forms
Charitable contributions
Alimony payments
Medical bills
Property taxes
Any other documentation

## Investment Records

Bank records and non-tax-related cheques less than a year old
Safety deposit box information
Stock, bond, and mutual fund transactions
Brokerage statements
Dividend records
Any additional investment documentation

## Retirement and Estate Planning

Copy of will
Company pension documentation
RRSP documentation
Canada Pension Plan records
Any additional retirement documentation

## Personal Planning

Personal balance sheet
Personal income statement
Personal budget
Insurance policies and documentation
Warranties
Receipts for major purchases
Credit card information (account numbers and telephone numbers)
Birth certificates
Rental agreement, if renting a dwelling
Automobile registration
Powers of attorney
Any additional personal planning documentation

## SAFETY DEPOSIT BOX STORAGE

## Investment Records

Guaranteed Investment Certificates
Listing of bank accounts
Stock and bond certificates
Collectibles

## Retirement and Estate Planning

Company pension records
RRSP records
Canada Pension Plan records

## Personal Planning

Deed for home
Mortgage
Title insurance policy
Personal papers (birth and death certificates,
alimony, adoption/custody, divorce, military, immigration, etc.)
Documentation of valuables
(videotape or photos, and serial numbers, if needed)
Home repair/improvement receipts
Listing of insurance policies
Credit card information
(account numbers and telephone numbers)

## Throw Out

Non-tax-related cheques over a year old
Records from cars and boats you no longer own
Expired insurance policies on which there
will be no future claims
Expired warranties
Non-tax-related credit card slips over a year old

## Storing Financial Files

Note: Many people keep a copy of their will in a safety deposit box. However, lawyers say that it is better to keep a signed copy with your lawyer or the executor and trustee of your estate, since the safety deposit box is sealed on the death of the owner or a co-owner, and the will becomes inaccessible, at least temporarily.

## WORKSHEET 6: Personal Balance Sheet—Determining Your Net Worth (Chapter 2,

## Page 32)

## Assets (What You Own)

A. Monetary Assets (bank account, etc.)
B. Investments

Your Numbers
$\qquad$
C. Retirement Plans
D. Housing (market value)
$+$ $\qquad$
E. Automobiles
$+$
F. Personal Property
$+$
G. Other Assets
$+$
H. Your Total Assets (add lines A through G)
$+$

## Liabilities or Debt (What You Owe)

## Current Debt

I. Current Bills
J. Credit Card Debt

## Long-Term Debt

K. Housing
$+$
L. Automobile Loans +
M. Other Debt +
N. Your Total Debt (add lines I through M)
$=$

## Your Net Worth

H. Total Assets
N. Less: Total Debt
O. Equals: Your Net Worth

## WORKSHEET 7: A Simplified Income Statement (Chapter 2, Page 39)

## Your Take-Home Pay

A. Total Income
B. Total Income Taxes
A.
B.
C. After-Tax Income Available for Living

Expenditures or Take-Home Pay (line A minus line B) $\quad=\quad \mathrm{C}$.
$\qquad$
$\qquad$

## Your Living Expenses

D. Total Housing Expenditures
D.
E. Total Food Expenditures $\quad+\quad$ E.
F. Total Clothing and Personal Care Expenditures $+\quad$ F.
G. Total Transportation Expenditures $+\quad$ G.
H. Total Recreation Expenditures $+\quad$ H.
I. Total Medical Expenditures $\quad+\quad$ I.
J. Total Insurance Expenditures $+\quad$ J.
K. Total Other Expenditures $+\quad$ K.
L. Total Living Expenditures
(add lines D through K) $\quad=\quad \mathrm{L}$.
M. Income Available for Savings and

Investment (line C minus line L) $=\mathrm{M}$.

## WORKSHEET 8: 2001 Tax Rates ( Chapter 4, Page 92)

## 2001 FEDERAL TAX BRACKETS AND RATES

 2001 FEDERAL TAX RATES
## INDIVIDUALS

2001

Taxable Income<br>\$0-30 754<br>30 755-61509<br>61510-100 000<br>100001 and over

Tax on Lower Limit \$
4921
11687
21694

Tax Rate on Excess
16\%
22\%
26\%
29\%

## WORKSHEET 9: T-1 GENERAL TAX FORM 2001 (Chapter 4, Page 112-113)

FORM TO BE SCANNED IN, OR HAVE A HYPERLINK TO THE CANADA CUSTOMS \& REVENUE SITE

WORKSHEET 10: Calculating Your Federal Income Tax (Chapter 4, Page 97)

| Federal Tax Rates Individuals |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Taxable <br> Income | Tax Rate <br> (\%) | $\mathbf{X}$ | Amount of Your Gross <br> Income Within This <br> Range | $=$ | Tax |  |
| $\$ 0-30,754$ | 16 |  |  |  |  |  |
| $\$ 30,755-$ <br> 61,509 | 22 |  |  |  |  |  |
| $\$ 61,510-$ <br> 100,000 | 26 |  |  |  |  |  |
| $\$ 100,001$ <br> and over | 29 |  |  |  |  |  |

## WORKSHEET 11: Choosing a Financial Institution (Chapter 5, Page 138)

The Three Cs of Choosing a Financial Institution to Bank With
Rank each Financial Institution, with three being the best and one being the worst.

## Financial <br> Institution 1

COST

- Fees
- Rates
- Minimum balances
- Per-cheque charges


## Convenience

- Location
- Access to ATMs
$\qquad$
$\qquad$
$\qquad$
$\qquad$
- Availability of safety deposit boxes
- Availability of direct deposit services
- Availability of overdraft protection
- Availability of all banking services you want


## Consideration

- Personal attention provided $\qquad$
$\qquad$
$\qquad$
- Financial advice that you are comfortable accessing
- A banking staff that is out to serve you
$\qquad$
$\qquad$
$\qquad$

Safety - The Final Consideration

- Canada Deposit Insurance

Corporation

## WORKSHEET 12: Worksheet for Balancing Your Chequing Account (Chapter 5, Page 142)

1. Record in your cheque register all items that appear on the monthly statement received from the bank that have not previously been entered, for example, cash withdrawals from an ATM, automatic transfers, service charges, and any other transactions.
2. In your chequing-account register, check off any deposits or credits and cheques or debits shown on the monthly statement.
3. In the Deposits and Credits section below (section A), list any deposits that have been made since the date of the statement.

## Section A: Deposits and Credits

Date
Particulars
Amount
1.
2.
3.
4.
5.
6.
TOTAL AMOUNT:
4. In the Outstanding Cheques and Debits section below (section B), list any cheques and debits issued by you that have not yet been reported on your account statement.

## Section B: Outstanding Cheques and Debits

## Cheque Number

Particulars
Amount
1.
2.
3.
4.
5.
6.
7.

TOTAL AMOUNT:
5. Write in the Ending Statement Balance provided in the monthly statement that you received from your bank.
6. Write in the total amount of the Deposits and Credits you have made since the statement date (total of section A above). $\qquad$
7. Total the amounts in lines 5 and 6.
$=$ $\qquad$
8. Write in the total amounts of outstanding Cheques and Debits (total of section B above).
9. Subtract the amount in line 8 from the amount in line 7 . This is your Adjusted Statement Balance.
$=$
$\qquad$

If your Adjusted Statement Balance as calculated above does not agree with your Account Register Balance:
A. Review last month's statement to reconcilement to make sure any differences were corrected.
B. Check to make sure that all deposits, interest earned, and service charges shown on the monthly statement from your bank are included in your account register.
C. Check your addition and subtraction in both your account register and in this month's chequing-account balance reconciliation above.

## WORKSHEET 13: How Long It Takes to Eliminate Credit Card Debt if You Pay a Constant Percentage of Your Initial Balance Each Month (Chapter 6, Page 167)

## STEP 1

Find the row that corresponds to the percentage of your initial balance that you intend to pay off each month. If you have an initial outstanding balance of $\$ 5,000$ and you intend to pay off $\$ 150$ each month, you would be paying off $\$ 150 / \$ 5,00053 \%$ each month. Thus, you should look in the $3 \%$ row.

## Step 2

Find the column that corresponds to the annual percentage that you pay on your credit card. If your card charges $15 \%$, look in the $15 \%$ column.

## Step 3

The intersection of the payments row and the credit card interest column shows how many months it would take to pay off your initial balance. If you pay off $3 \%$ of your initial balance each month and the card charges $15 \%$, it would take 43 months to pay off your initial balance.

## Annual Credit Card Interest Rate

| Monthly Payment, <br> \% of Initial <br> Outstanding Balance | $\mathbf{9 \%}$ | $\mathbf{1 2 \%}$ | $\mathbf{1 5 \%}$ | $\mathbf{1 8 \%}$ |
| :--- | :--- | :--- | :--- | :--- |
| $\mathbf{2 \%}$ | 63 months | 70 months | 79 months | 93 months |
| $3 \%$ | 39 months | 41 months | 43 months | 47 months |
| $5 \%$ | 22 months | 22 months | 23 months | 24 months |
| $10 \%$ | 10 months | 11 months | 11 months | 11 months |
| $15 \%$ | 7 months | 7 months | 7 months | 7 months |

WORKSHEET 14: Using the Rule of 78s (Page 189, Chapter 7)
[Catch Figure 7.3 from page 189 of Personal Finance, first Canadian edition.]



## WORKSHEET 16: Before You Buy (Chapter 8, Page 208)

Take advantage of sales, but compare prices. Do not assume an item is a bargain just because it is advertised as one.

Do not rush into a large purchase because the "price is only good today."

Be aware of such extra charges as delivery fees, installation charges, service costs, and postage and handling fees. Add them into the total cost.

Ask about the seller's refund or exchange policy.
Do not sign a contract without reading it. Do not sign a contract if there are any blank spaces in it or if you do not understand it.

Before buying a product or service, contact your consumer protection office to see if there are automatic cancellation periods for the purchase you are making. In some cases, there are cancellation periods for dating clubs, health clubs, and time-share and campground memberships.

Walk out or hang up on high-pressure sales tactics. Do not be forced or pressured into buying something.

Do not do business over the telephone with companies you do not know.
Be suspicious of P.O. box addresses. They might be mail drops. If you have a complaint, you might have trouble locating the company.

Do not respond to any prize or gift offer that requires you to pay even a small amount of money.
Do not rely on a salesperson's promises. Get everything in writing.

Source: Industry Canada, Consumer Tips, 2001.

## WORKSHEET 17: Buying a Used Vehicle (Chapter 8, Page 211)

Check newspaper ads and used-car guides at a local library so you know what's a fair price for the car you want.

Remember: prices are negotiable. You also can look up repair recalls for car models you might be considering.

Get recall information on the car. Authorized dealers of that make of vehicle must do recall work free no matter how old the car is.

Shop during daylight hours so that you can thoroughly inspect the car and take a test drive. Do not forget to check all the lights, air conditioner, heater, and other parts of the electrical system.

Do not agree to buy a car unless you have had it inspected by an independent mechanic of your choice.

Ask questions about the previous ownership and mechanical history of the car. Contact the former owner to find out if the car was in an accident or had any other problems.

Ask the previous owner or the manufacturer for a copy of the original manufacturer's warranty. It still might be in effect and transferable to you. If it is not, ask whether the car is a certified preowned vehicle.

Do not sign anything that you do not understand. Read all documents carefully. Negotiate the changes you want and get them written into the contract.

Source: U.S. Office of Consumer Affairs, Consumer's Resource Handbook, 2000.

## WORKSHEET 18: Tips on Buying a New Car (Chapter 8, Page 213)

Evaluate your needs and financial situation. Read consumer magazines and test-drive several models before you make a final choice.

Find out the dealer's invoice price for the car and options. This is what the manufacturer charged the dealer for the car. You can order this information for a small fee from consumer publications or you can find it at your local library or get it on the Internet.

Find out if the manufacturer is offering rebates that will lower the cost.
Get price quotes from several dealers. Find out if the amounts quoted are the prices before or after the rebates are deducted.

Keep your trade-in negotiations separate from the main deal.

Compare financing from different sources (e.g., banks, credit unions, and other dealers) before you sign the contract.

Read and understand every document you are asked to sign. Do not sign anything until you have made a final decision to buy.

Think twice about adding expensive extras you probably do not need to your purchase (e.g., credit insurance, service contracts, or rust proofing).

Inspect and test-drive the vehicle you plan to buy, but do not take possession of the car until the whole deal, including financing, is finalized.

Do not buy on impulse or because the salesperson is pressuring you to make a decision.

Source: U.S. Office of Consumer Affairs, Consumer's Resource Handbook, 2000.

## WORKSHEET 19: Leasing May Make Sense if ... (Chapter 8, Page 214)

The lease under consideration is a closed-end, not an open-end, lease.
You are financially stable.

It is important to you that you have a new car every 2 to 4 years.

You do not drive over 25,000 kilometres annually.

You take good care of your car and it ages with only normal wear and tear.
You are not bothered by the thought of monthly payments that never end.
You use your car for business travel.

You do not modify your car (e.g., add superchargers or after-market suspension components).

The manufacturer of the car you are interested in is offering low financing charges.

## WORKSHEET 20: Worksheet for the Lease versus Purchase Decision (Chapter 8, Page 216)

## Cost of Purchasing

# Your <br> Numbers 

a. Agreed-upon purchase price
b. Taxes
c. Down payment
d. Total loan payments over 36 months
e. Less: Expected market value of the car at the end of the loan
f. Total cost of purchasing (lines $b+c+d-e$ )
g. Principal remaining on loan
h. Total payments over 48 months
i. Total cost including down payment

## Cost of Leasing

a. Down payment
b. Total lease payments
c. Buyout plus taxes
d. Financing buyout at $7.5 \%$ using a one year loan
f. Total cost after 48 months

WORKSHEET 21: Monthly Mortgage Payments Required to Repay a $\mathbf{\$ 1 0 , 0 0 0}$ Loan with Different Interest Rates and Different Maturities (Chapter 8, Page 222)

## Loan Maturity

| Rate of <br> Interest <br> $\mathbf{1 0}$ Years $\mathbf{1 5}$ Years  $\mathbf{2 0}$ Years  <br> $5.0 \%$$\| 106.07$ |
| :--- |
| 79.08 |
| 66.00 |
| $\mathbf{2 5}$ Years |
| 5.5 |

## Calculating monthly payments on a loan:

STEP 1: Divide the amount borrowed by $\$ 10,000$. For example, for a $\$ 100,000$ loan, the step 1 value would be $\$ 100,000 / \$ 10,000=10$.

Step $1=$ $\qquad$

STEP 2: Find the monthly payment for a $\$ 10,000$ loan at the appropriate interest rate and maturity in the table above. For a 15 -year mortgage at $9 \%$, the value would be $\$ 101.43$.

Step $2=$ $\qquad$
STEP 3: Multiply the step 1 value by the step 2 value. In the example, this is $10 \times \$ 101.43=$ \$1,014.30.

Step $3=$ $\qquad$

WORKSHEET 22: Worksheet for the Rent versus Buy Decision (Chapter 8, Page 225)

## The Cost of Renting

|  | 1 year | 7 year | Your numbers |
| :---: | :---: | :---: | :---: |
| 1. Total monthly rent costs (monthly rental times 12 each year with rent increases of $2 \%$ per year) |  |  |  |
| 2. Renters' insurance at $\qquad$ per year (no inflation assumed |  |  |  |
| Total cost of renting |  |  |  |
| The Cost of Buying |  |  |  |
| 3. Total mortgage payments (___ monthly) |  |  |  |
| Property taxes on the new house (\$ $\qquad$ with annual inflation of 2\%) |  |  |  |
| Homeowner's insurance at \$ $\qquad$ per year (no inflation assumed) |  |  |  |
| 4. Additional operating and maintenance costs beyond those of renting, assumed to be $\$$ $\qquad$ per year with no inflation |  |  |  |
| 5. After-tax opportunity cost of interest lost on down payment (after-tax rate of return of $\qquad$ on \$ $\$ \quad$ ) ) |  |  |  |
| 6. Closing costs <br> Less savings: total loan payments going to loan principle |  |  |  |
| 7. Appreciation in value of house, less sales commission at end of period of $\qquad$ on the first $\$ 50,000$ and $5 \%$ thereafter |  |  |  |
| Total cost of buying |  |  |  |
| Disadvantage of renting buying |  |  |  |

WORKSHEET 23: Worksheet for Calculating the Maximum Monthly Mortgage Payment and Mortgage Size for Which You Can Qualify (Chapter 8, Page 228)

METHOD I Determine Your Maximum Monthly Mortgage Payment Using the Ability to Pay, GDS ratio
a. Monthly income (annual income divided by 12)
b. Percentage of GDS that lenders will lend based on your income, $32 \%$
c. Monthly real estate taxes
d. Maximum monthly mortgage payments

To Determine the Maximum Mortgage Loan Level Using the Maximum Monthly Mortgage Payments as Determined from line d, take the monthly mortgage payment for a $\$ 10,000$ mortgage with a 25 -year maturity at $\qquad$ \% using table 8.1
Maximum mortgage level = maximum monthly mortgage payment (line d ) divided by the monthly mortgage payment on a $\$ 10,000$, $\qquad$ \%, 25 -year mortgage (as above) times $\$ 10,000=$ $\qquad$ X \$ $\qquad$
METHOD II Determine Your Maximum Monthly Mortgage Payment Using the Ability to Pay, GDS Plus Other Fixed Monthly Payments, Ratio.
e. Monthly income
f. Percent of GDS plus current monthly fixed payments compared to your monthly gross income, $\qquad$ $\%$
g. Less: Current non-mortgage debt payments on debt that will take over

10 months to pay off
h. Less: Estimated monthly real estate tax payments
i. Your maximum monthly mortgage payment

To Determine the Maximum Mortgage Loan Using the GDS Plus Other Fixed Monthly Payments Ratio, take the Monthly mortgage payment for a $\$ 10,000,25$-year maturity at $\qquad$ \% using table 8.1
$\qquad$

Maximum mortgage level = maximum monthly mortgage payment (line d ) divided by the monthly mortgage payment on a $\$ 10,000$, \%, $\qquad$ year mortgage (as above) times $\$ 10,000=$ $\qquad$ x $\$ 10,000$

METHOD III: Determine Your Maximum Mortgage Level Using the " $75 \%$ of the Appraised Value of the House" Rule.
j. Funds available for down payment and closing costs
k. Less: Closing costs

1. Funds available for the down payment
m . Maximum mortgage level using the " $75 \%$ of appraised value of the house" rule

Conclusion: Maximum Mortgage Level for Which You Will Qualify (the lower of the amounts using method I, method II, or method III)

WORKSHEET 24: Worksheet for Estimating Life Insurance Needs (Chapter 9, Page 251)

| Step 1: Immediate Needs - Cleanup Funds | Total Needs |
| :--- | :--- |
| Final Illness Costs (assumed equal to your health insurance deductible) | a. |
| Estate Administration Costs (assumed equal to 4\% of your assets) | b. |
| Burial Costs | c. |
| Final Income Tax Liability | d. |
| Additional Legal Fees | e. |
| Other Immediate Needs | f. |
| Total Immediate Needs (add lines a through f) | g. |
|  |  |
| Step 2: Debt Elimination Funds | h. |
| Credit Card and Consumer/Installment Debt | i. |
| Auto Debt Outstanding | j. |
| Desired Mortgage Reduction | k. |
| Other Debt to Be Paid Off at Your Death | 1. |
| Total Debt Elimination Funds (add lines h through k) |  |
| Step 3: Immediate Transitional Funds | m. |
| Schooling Expenses for Surviving Spouse | n. |
| Child Care and Housekeeping Expenses | o. |
| Other Transitional Needs | p. |
| Total Immediate Transitional Funds (add lines m through o) |  |

Step 4: Dependency Expenses (family needs while children are in school and dependent on family support)
Current Household Expenses (estimated as income less savings)
q. $\qquad$
Less: Deceased's Expenses (estimated as 30\% of line r if surviving family includes only one member, $26 \%$ for a surviving family of two, $22 \%$ for a surviving family of three, and dropping $2 \%$ more for each additional family member)
Less :Spousal Income
Less: Canada Pension Plan Survivors' Benefits
Less: Employer Pension Benefits and Income
s.
$\qquad$
$\qquad$
t. $\qquad$
Equals: Income to Be Replaced Until Children Are Self-Supporting (line q - lines r through u )
u . $\qquad$
v. $\qquad$
Total Dependency Expenses or Money in Today's Dollars Needed for Dependency Expenses (assuming the children have $n$ years until they become self-supporting and you can earn an $i \%$ after-tax and after-inflation return on your investments) (line v x PVIFAi\%, $n y r$ ) $=$
$\qquad$ x PVIFA $\%$, $\mathbf{y r})=($ $\qquad$ x $\qquad$ w. $\qquad$
Step 5: Spousal Life Income (spousal needs after children are self-supporting) Desired Spousal Income
X. $\qquad$

Total Spousal Life Income or Money in Today's Dollars to Provide for Desired Spousal Income (assuming $n$ years until the children become self-supporting and $\boldsymbol{m}$ years until the spouse qualifies for Canada Pension Plan or other retirement income, and assuming you can earn an i\% after-tax and after-inflation return on your investments)


$y$. $\qquad$
Step 6: Educational Expenses for Your Children
Total Educational Expenses (private school needs plus total college needs)
Step 7: Retirement Income
Additional Desired Annual Income at Retirement
Total Retirement Income or Money in Today's Dollars to Provide for Desired Retirement Income (assuming retirement in $m$ years and desiring the additional income for $p$ additional years, and assuming you can earn an $\mathbf{i} \%$ after-tax and after-inflation return on your investments)
$\left[\right.$ line aa $\left.\times\left(P V I F A_{i} \%, m+p y r-P V I F A_{i} \%, m y r\right)\right]=$


Step 8: Total Funds Needed in Today's Dollars to Cover Needs
Total (lines $\mathbf{g}+\mathbf{l}+\mathbf{p}+\mathbf{w}+\mathbf{y}+\mathbf{z}+\mathbf{b b}$ )
cc. $\qquad$

[^0]
## WORKSHEET 25: Questions to Ask Potential Insurance Agents (Chapter 9, Page 268)

Are you a full-time insurance agent? Agent's Answer:


#### Abstract

Preferred Answer: You should not deal with someone who only works part-time as an insurance agent. Your insurance agent needs to be knowledgeable.


How long have you been a full-time insurance agent? Agent's Answer:

Preferred Answer: You should only deal with someone with experience. While a new agent may be competent, a more established agent may have experience you can benefit from. Moreover, an established agent may not have the financial pressure to sell you a policy that does not precisely fit your needs.
What life insurance companies do you represent? Agent's Answer:

Preferred Answer: You should not consider an agent that does not represent at least one company with a top rating from A. M. Best for 10 consecutive years.

Are you a CLU? Agent's Answer:

Preferred Answer: A CLU is preferred, particularly if you are considering something other than term insurance and if you are seeking advice.

Will I be allowed to keep the insurance proposal that you prepare for me? Agent's Answer:

[^1]Preferred Answer: You want to make sure that your agent is working on your behalf. By knowing what the agent's interests are in selling various policies, you may be better able to avoid being sold a policy that is of more benefit to the agent than to you.
Do you have any clients who are willing to recommend you? Agent's Answer:

Preferred Answer: Your agent should either supply you with a listing of satisfied customers, or testimonial letters from customers. In short, you should not consider an agent without a recommendation.

## WORKSHEET 26: Should You Buy Life Insurance? (Chapter 9, Page 252)

## LIFE INSURANCE IS NOT NECESSARY IF:

## You are single and do not have any dependents.

You are married, a double-income couple, with no children. Consider life insurance only if you are concerned that the surviving spouse's lifestyle will suffer if you die.

You are married, but do not work. Consider life insurance only if you have young children and your spouse would have financial problems with day care and housekeeping if you die.

You are retired. Consider life insurance only if your spouse could not live on your savings, including government pensions and your employer pension, if you die.

## CONSIDER LIFE INSURANCE IF:

You have children. You should have coverage for raising and educating your children until they are financially self-sufficient.

You are married, a single-income couple, with no children. You should have insurance to allow your surviving spouse to maintain his or her lifestyle until he or she can become selfsufficient.

You own your own business. A life insurance policy can allow your family to pay off any business debt if you die.

## WORKSHEET 27: Worksheet for Health Care Insurance Shopping (Chapter 9, Page 274)

1. The ideal plan is group supplementary health insurance through your employer.
2. Do not put off buying health care insurance - buy it while you are healthy.
3. Consider only a high-quality insurance company with either an $\mathrm{A}++$ or an $\mathrm{A}+$ rating from A .
M. Best. Never consider TV-celebrity-advertised insurance.
4. Look for group insurance - it is generally cheaper.
5. Look for companies that provide fast, fair, and courteous claim service.
6. Avoid policies with major exclusions and limitations.
7. Get comprehensive health insurance; avoid single disease (like cancer) insurance and accident (as opposed to comprehensive health including illness) insurance.
8. Only consider insurance that is non-cancellable or guaranteed renewable.
9. Consider Blue Cross.
10. Take as high a deductible and coinsurance payments as you can reasonably afford. This will reduce your premiums. If your group plan offers you choices, consider them carefully.
11. Try to get a policy that includes mental and emotional disorders.

## WORKSHEET 28: Ways to Lower Your Home Insurance Costs (Chapter 10, Page 288)

Shop around.
Raise your deductible.

Buy your home and auto policies from the same insurance company.
When you buy a home, buy a new one and choose the location wisely.
Insure your house, not the land.
Beef up your home security.
Stop smoking.
Ask about discounts for seniors.

See if you can get group coverage.

If you stay with the same insurance company - if you have kept your coverage with a company for several years - you may receive a discount for long-standing policyholders.

## WORKSHEET 29: Long-Term Health Care Provisions (Chapter 9, Page 277)

## Necessary

Selection of Company. Consider only high-quality insurance companies with either an A++ or an A+ rating from A. M. Best. Never consider TV-celebrity-advertised insurance.

Qualifying for Benefits. The insured is unable to perform at most two "activities of daily living" (ADLs) without assistance.

Qualifying for Benefits. Policy includes coverage for Alzheimer's and Parkinson's disease.
Qualifying for Benefits. Hospital stay not required for benefits.

Benefit Period. A minimum 3- to 6-year benefit period.

Inflation Adjustment. The policy should give you the option of purchasing inflation coverage.

Non-cancellability. The policy should not be cancellable.

## Desirable, but Not Necessary - Cost-Benefit Trade-offs Must Be Considered

Type of Care. Home care, adult day care, and hospice care for the terminally ill are all desirable provisions.

Benefit Period. Women should consider longer benefit periods.

Waiver of Premium. While desirable, it is generally too expensive to warrant serious consideration.

## Cost-Reducing Provision to Consider

Waiting Period. Consider a waiting period of 100 days or more - if affordable.

## Provisions to Avoid - Not Worth the Cost

Non-forfeiture Provision. Simply too expensive.

# WORKSHEET 30: Worksheet for Estimating How Much Disability Insurance Coverage You Need (Chapter 9, Page 274) 

1. Current monthly after-tax job-related income
2. Existing disability coverage on an after-tax-basis

- Canada Pension Plan +
- Employer group plan coverage 1
$+$ $\qquad$
- Other provincial/territorial disability insurance
- Other disability coverage in place
$+$ $\qquad$
$\qquad$
Total existing coverage
$=$

3. Added disability coverage needed to maintain current level of after-tax job-related income in the event of a disability (subtract 2 from 1)

Worker's compensation disability benefits are not included because they are only available for work-related injuries. They can be brought into consideration if they are relevant, but they should not be allowed to dictate the amount of insurance protection you need

## WORKSHEET 31: A Checklist for Homeowner's Insurance (Chapter 10, Page 295)

1. Determine the amount and type of homeowner's insurance you need.
2. Put together a listing of top-quality (as listed in A. M. Best's Key Rating Guide on Property and Casualty Insurers, also located at their Web sit at $<w w w . a m b e s t . c a>$ ) insurance agents with a good local reputation who carry these insurers.
3. Consult with agents, letting them know what you're looking for. Consider any recommendations or modifications they might suggest.
4. Get several bids on the total package, including all modifications, floaters, and extensions.
5. Conduct an annual review of your homeowner's insurance coverage.

## WORKSHEET 32: Common Automobile Insurance Discounts Checklist (Chapter 10, Page 302)

You can reduce your auto insurance premiums significantly by taking advantage of discounts. Listed below are the most common automobile insurance discounts.

Collision Free. Discounts on most coverage after three years without a chargeable collision. After six years, the discount rises.

Multiple Automobiles. Discount for insuring more than one car with the same company.

Low Annual Miles. Discount if you drive fewer than 12,000 kilometres per year.
Automobile and Homeowners Together. Discounts on both policies if they are with the same company.

Low "Damageability." Discounts off collision and comprehensive premiums if the car is statistically less likely to result in an expensive claim because it is cheaper to repair or less appealing to thieves.

Driver education. Discount for drivers who take driver education courses.
Over 50. Discount off the usual adult rate if you are over 50.

Defensive Driving Course. A discount if you complete a defensive driving course (many times only applies to drivers 55 or older).

Passive Restraints. Discounts on some types of coverage if you have airbags or automatic seatbelts. Antilock brakes also add a discount.

Non-commuter or Carpooler. Discount if you drive less than 50 kilometres to and from work each day.

Antitheft Devices. Discount depending on where you live and the type of device.

## WORKSHEET 33: Insurance Tracker (Chapter 10, Page 203)

| Type of Coverage (Insurer and Policy Number) | Amount of Coverage, Deductibles, and Cost | Policy <br> Location | Agent (Name, <br> Phone Number) | Is This Coverage Adequate? |
| :---: | :---: | :---: | :---: | :---: |
| Life |  |  |  |  |
| Health Care |  |  |  |  |
| Disability |  |  |  |  |
| Long-Term Care |  |  |  |  |
| Homeowner's |  |  |  |  |
| Auto |  |  |  |  |
| Personal Umbrella Liability |  |  |  |  |

## WORKSHEET 34: Investments and Property Inventory (Chapter 11, Page 331)

## Investments

| Institution and <br> Phone Number | Account <br> Number | Purchase <br> Date and Price | Location of <br> Key Records |
| :--- | :--- | :--- | :--- |
| Mutual Funds |  |  |  |
| Brokerage |  |  |  |
| Accounts |  |  |  |
| (and location) |  |  |  |

Are you willing to pay a higher commission for investment advice? If so, consider a full-service dealer

Does the dealer firm provide both safe-keeping and record-keeping services?
$\qquad$
$\qquad$

Are the accounts insured for up to $\$ 1000000$ by the Canadian Investor Protection Fund (CIPF) in case the dealer firm goes bankrupt?
$\qquad$
$\qquad$

Does the dealer firm provide an 800 number for transactions and quotes?
$\qquad$
$\qquad$

Do you receive interest on idle cash in your account?

## Worksheet 36 Buying a Mutual Fund (Chapter 15, Page 445)

How has this fund performed over the long run?
$\qquad$
$\qquad$
$\qquad$

Have I obtained an independent evaluation of this fund?
$\qquad$
$\qquad$
$\qquad$

What specific risks are associated with this fund?
$\qquad$
$\qquad$
$\qquad$

What type of securities does the fund hold? How often does the portfolio change?
$\qquad$
$\qquad$
$\qquad$

How does the fund perform compared to other funds of the same type or to an index of the same type of investment?

How much will the fund charge me when I buy shares? What other ongoing fees are charged?
$\qquad$
$\qquad$
$\qquad$

How tax efficient is this fund?

## WORKSHEET 37: Worksheet for Funding Your Retirement Needs (Chapter 16, Page 467)

## Your <br> Numbers

## Step 1: Set Your Goals.

## Step 2: Estimate your Annual Needs at Retirement.

A. Present level of your living expenditures on an after-tax basis
B. Times 0.80 equals: Base retirement expenditure level in today's dollars x 0.80
$=$
C. Plus or minus: Anticipated increases or decreases in living expenditures after retirement + or - $\qquad$
D. Equals: Annual living expenditures at retirement in today's dollars on an after-tax basis
$=$ $\qquad$
E. Before-tax adjustment factor, based on an average tax rate of __ \% : (If the average tax rate is not known, it can be estimated using Table 16.2, The Average Tax Rate.) This is used to calculate the before-tax income necessary to cover the annual living expenses in line D . Thus, line F , the before-tax income $=$ line $\mathrm{D} /$ line E where line $\mathrm{E}=(12$ Average Tax Rate $)$ $\qquad$
F. Equals: The before-tax income necessary to cover the annual living expenses in line $\mathrm{D} \quad$ Line D divided by Line $\mathrm{E}=$ $\qquad$
Step 3: Estimate Your Income Available at Retirement.
G. Income from Social Security in today's dollars
H. Plus: Projected pension benefits in today's dollars

I. Plus: Other income in today's dollars $\qquad$
J. Equals (lines G + H + I): Anticipated retirement income, in today's dollars =

Step 4: Calculate the (Annual) Inflation-Adjusted Shortfall.
K. Anticipated shortfall in today's dollars (line F minus line J) $\qquad$
L. Inflation adjustment factor, based on an anticipated inflation rate of ___ \% between now and retirement with ___ years to retirement (FVIFs are found in Appendix A): $F V I F_{\text {inflation rate }} \%$, no. years to retirement
M. Equals: Inflation-adjusted shortfall (line K 3 line L) $\qquad$
Step 5: Calculate the Total Funds Needed at Retirement to Cover This Shortfall Over the Number of Years You Expect to Be Retired (assuming an inflation-adjusted return of $\%$ [return (_ \%) minus the inflation rate (__ \%)] during your retirement period, with retirement anticipated to last for $\qquad$ years).
N . Calculate the funds needed at retirement to cover the inflation-adjusted shortfall over the entire retirement period, assuming that these funds can be invested at $\qquad$ $\%$ and that the inflation rate over this period is $\qquad$ \%. Thus, determining the present value of a $\qquad$ -year annuity assuming a $\qquad$ \% inflation-adjusted return: PVIF $A_{\text {inflation-adjusted return, no. years in retirement }}$ (PVIFAs are found in Appendix D).
O. Equals: Funds needed at retirement to finance the shortfall (line M x line N )
x line $\mathrm{M}=$ $\qquad$
Step 6: Determine How Much You Must Save Annually Between Now and Retirement P. Future value interest factor for an annuity for \%) to Cover the Shortfall.
P. Future value interest factor for an annuity for $\qquad$ years, given a $\qquad$ \% expected annual return: $F V I F A_{\text {expected rate of return, no. years to retirement }}$ (FVIFAs are found in Appendix C).
$=$ $\qquad$
Q. Equals: PMT, or the amount that must be saved annually for $\qquad$ years and invested at $\qquad$ $\%$ in order to accumulate the line O amount at the end of $\qquad$ years
line O divided by line $\mathrm{P}=$ $\qquad$

# WORKSHEET 38: Questions You Should Be Able to Answer about Your Company's Pension Plan (Chapter 16, Page 471) 

Is this a noncontributory or a contributory plan?
What are the pension requirements in terms of age and years of service?

Is there an early retirement age, and if so, what are the benefits?

What is the full-benefits retirement age?
How does the vesting process work?
If I retire at age 65 , how much will I receive in the way of pension payments?
If I die, what benefits will my spouse and family receive?

What is the present size of my pension credit today?

If I am disabled, will I receive pension benefits?
Can I withdraw money from my retirement fund before retirement?
Can I borrow on my retirement fund, and if so, what are the terms?
If my company is taken over, or goes bankrupt, what happens to the pension fund?

Is the plan funded? If not, what portion of the benefits could the company pay today?

Is my pension plan a defined-contribution plan or a defined-benefit plan?
What are the choices available to me regarding ways that the pension might be paid out?

Worksheet 39 Estate Planning Process (Chapter 17, Page 492)
Step 1: Determine What Your Estate is Worth
$\qquad$
$\qquad$
Step 2: Choose Your Heirs and Decide What They Receive
$\qquad$
$\qquad$

Step 3: Determine the Cash Needs of the Estate
$\qquad$
$\qquad$

Step 4: Select and Implement Your Estate Planning Techniques

## WORKSHEET 40: Estate Planning Worksheet (Chapter 17, Page 502 )

## DO YOU AND THE MEMBERS OF YOUR FAMILY KNOW THE LOCATION OF . . .

Your will, enduring power of attorney, and living will (with the name of the attorney who drafted them)?

The name of your attorney?
Your letter of last instructions, including burial requests and organ donor information?
Your Social Insurance number?
Your safety deposit box and the key to it?
A record of what is in your safety deposit box?
Your birth certificate?
Your marriage certificate?
Any military discharge papers?
Insurance policies (life, health, and property/liability), along with the name of your insurance agent?
Deeds and titles to property (both real estate and real, for example, automobiles)?
Your stocks, bonds, and other securities, and who your broker is?
Any business agreements, including any debts owed you?
All chequing, savings, and brokerage account numbers, along with the location of those accounts?

The name of your accountant?
Your last year's income tax return?
The name of past employers, along with any pension or retirement benefits information?

You should also:

1. Calculate the size of your estate.
2. Know who the executor of your will is and who your beneficiaries are.
3. Select a guardian for your children if they are under 18.

## WORKSHEET 41: Safety Deposit Box Information (Chapter 17, Page 502)

## Box 1 <br> Box 2

Name of Bank Where Located $\qquad$

Address of Bank

Box Number

Location of Keys

Inventory of Contents and Description


[^0]:    Step 9: Assets and Insurance Available to Cover Needs Cash from Current Insurance Policies

    Retirement Savings and Investments
    dd. $\qquad$
    ee. $\qquad$
    Other Assets
    Total Assets (add lines dd +ee +ff)
    ff. $\qquad$
    Step 10: Additional Insurance Needs
    Additional Insurance Needs (line cc-line gg)
    gg. $\qquad$
    $=$ $\qquad$

[^1]:    Preferred Answer: You should not consider an agent that does not allow you to keep the proposal.
    Would you be willing to inform me of the commission you will receive on any policies you recommend? Agent's Answer:

