Name: _____ Date: _____ MAP 4C1

REVIEW – CHAPTER 8

8.1 – SAVINGS PLANS

1. Marie saved **10%** of her net earnings from her last four paycheques. The table shows the dates and net earnings of the paycheques. Complete the table below to determine how much Marie saved from each paycheque

Pay date	***Net Earnings ($)***	***10% of Net Earnings***
April 3	$689.43	
April 17	$941.97	
May 1	$880.16	
May 15	$736.11	

2. Tyler's monthly net earnings average **$1104.67**. Each month, he deposits **20%** of this amount into an account that pays **3.4% per year, compounded <u>monthly</u>.**

(a) Calculate the amount Tyler deposits each month

(b) What is the total amount Tyler saves in **1 year**?

(c) Determine the **future value** of Tyler's account after **1 year**. * Use the **future value** formula

3. Susan is paid **bi-weekly**. She saves **$40** from each pay. Determine the total amount Susan saves in each time period below

(i) a month with **2 pay days**

(ii) a month with **3 pay days**

(iii) **1 year**

CABILAN MATH ONLINE.COM IMAGINASIAN

Name: _____ Date: _____ MAP 4C1

4. Davinder plans to buy a new car in **1 year**. He needs **$2500** to make a downpayment. Davinder is paid **bi-weekly**. Determine the amount he needs to save from each paycheque in order for Davinder to make the downpayment.

5. Thanh is paid **bi-weekly**. How much does he need to save from each paycheque to have **$2800** one year from now?

6. Connie saves **25%** of her net pay for a downpayment on a house. Her net income average **$1892** *every 2 weeks*. Connie has an account that pays **4.5% per year, compounded bi-weekly.**

(a) How much will connie have saved at the end of **1 year**?

(b) Use the **future value** formula to determine the amount in Connie's account after **1 year**

(c) Use the **future value** formula to determine the amount in Connie's account after **3 years**

CABILAN MATH ONLINE.COM

7. To save money for a ski trip, Kevin stopped buying his daily cup of coffee. *Each day*, he put **$1.65** in a jar instead of buying the coffee.

Determine the amount of money in Kevin's jar after each time period

(i) **12 weeks**

(ii) **1 year**

8.2 – THE COST OF RENTING A HOME

1. The monthly rental cost for a 2-bedroom apartment is **$989** plus utilities. The estimated utility expenses are
- **$145 every 2 months** for electricity
- **$100 every month** for natural gas
- **$125 every 3 months** for hydro (water)

(a) Calculate the average **monthly <u>utilities</u> expense**

(b) Estimate the **total expenses** for **1 year**

2. The monthly rental cost for a bachelor apartment is **$725 per month** plus utilities. The estimated utility expenses are
- **$98 every 2 months** for electricity
- **$70 per month** for natural gas
- **$115 every 3 months** for hydro (water)
- **$50 per month** for a landline telephone

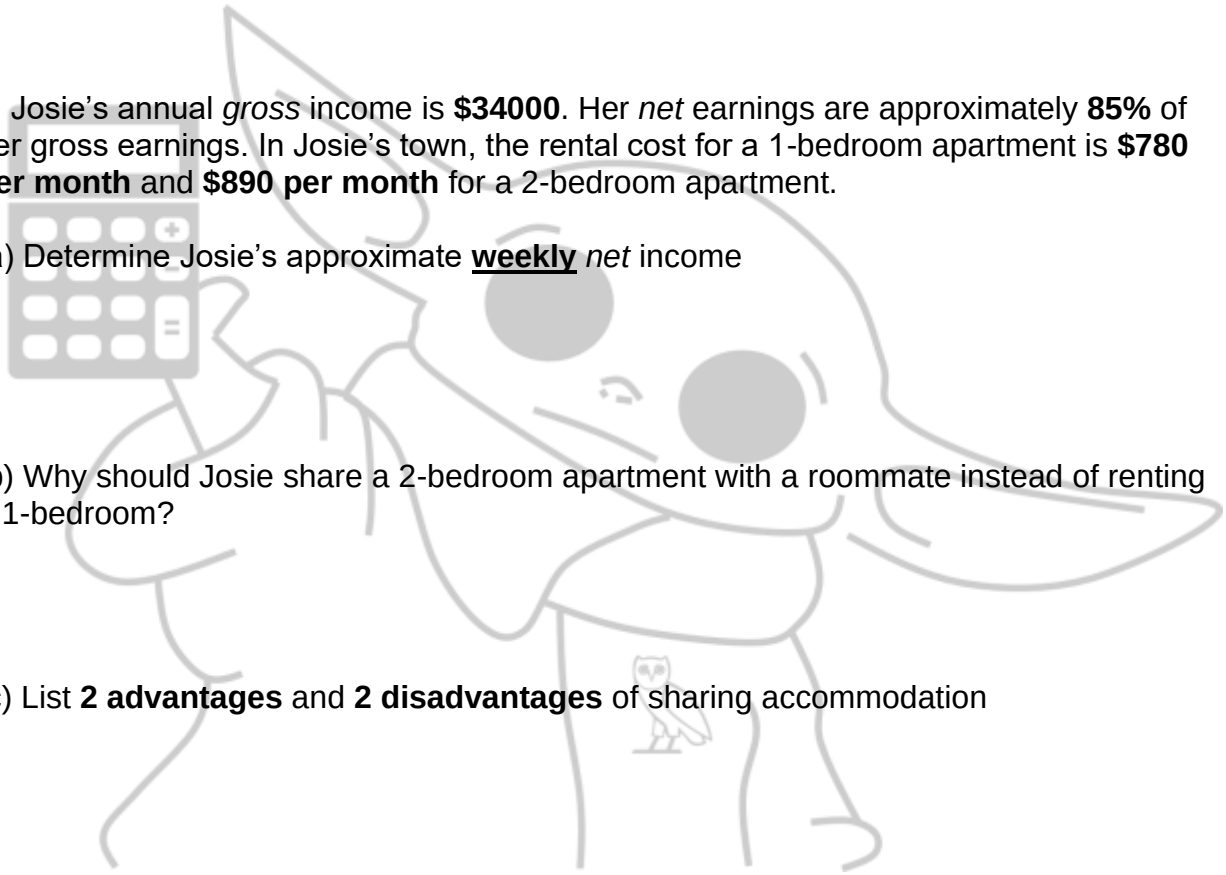
Calculate the **average <u>monthly</u> expenses** for this apartment

CABILAN MATH ONLINE.COM IMAGINASIAN

Name: _____ Date: _____ MAP 4C1

3. Adrian is moving to a new city to start college. He is renting a bachelor apartment for **$655 per month** plus electricity. The electric company requires new customers to pay a **$120 deposit** and an **$80 connection fee**. The rental agreement requires payment of **first and last months'** rent prior to moving in.

Calculate the total amount Adrian must pay before moving in.



4. Josie's annual *gross* income is **$34000**. Her *net* earnings are approximately **85%** of her gross earnings. In Josie's town, the rental cost for a 1-bedroom apartment is **$780 per month** and **$890 per month** for a 2-bedroom apartment.

(a) Determine Josie's approximate **weekly** *net* income

(b) Why should Josie share a 2-bedroom apartment with a roommate instead of renting a 1-bedroom?

(c) List **2 advantages** and **2 disadvantages** of sharing accommodation

5. Aisling recently graduated from college and started work as a veterinary technician. Her annual *gross* income is expected to be **$38000**. Aisling's *net* pay is approximately **85%** of her gross income.

What is the maximum **monthly** rent that Aisling can afford if she wishes to stay within the guideline of **1 week's salary = 1 month's rent**?

CABILAN MATH ONLINE.COM

Name: _____ Date: _____ MAP 4C1

8.3 – THE COST OF OWNING A HOME

1. Calculate the **total cost** of each mortgage for **1 year**

(a) **$831.09** paid **weekly**

(b) **$1069.58** paid **monthly**

(c) **$1251.60** paid **bi-weekly**

2. Calculate the property tax payment for each situation

(a) **$4059 annual tax**, payments made **quarterly**

(b) **$5515 annual tax**, payments made **monthly**

(c) **$2047 annual tax**, payments made **bi-weekly**

3. Jade makes **bi-weekly** mortgage payments of **$957** and **monthly** property tax payments of **$364.51**. Calculate Jade's **total annual (yearly)** housing costs

CABILAN MATH ONLINE.COM

Name: _____ Date: _____ MAP 4C1

4.

(a) Moira makes **monthly** mortgage payments of **$1124.32**. Her average utility expenses are **$329 per month** and pays common fees of **$323 per month**.

(i) Calculate Moira's **total annual housing costs**

(ii) If Moira earns **$68000 per year**, calculate the percent of total income spent on the above housing costs

(b) Theo makes **weekly** mortgage payments of **$752.57**. His **monthly** condo fees are **$314** and his average **monthly** utility expenses are **$289**.

(i) Calculate Theo's **total annual housing costs**

(ii) If Theo earns **$52500 per year**, calculate the percent of total income spent on the above housing costs

5. Nicola and Drew have a combined annual income of **$168000**. They live in a 3-bedroom home with their two small children. They make **bi-weekly** mortgage payments of **$1581.22** and their average **monthly** utility expenses are **$438**.

(a) Calculate Nicola and Drew's **total annual housing costs**

(b) Calculate the **percent** of their **total income** that is spent on housing costs

CABILAN MATH ONLINE.COM

Name: _____ Date: _____ MAP 4C1

8.4 – LIVING EXPENSES

Use the monthly budget chart on the right to answer **Questions 1 and 2**

INCOME ($)	
Tomasz	3600
Ioanna	4150
TOTAL	
EXPENSES ($)	
Fixed Expenses	
Mortgage	
Condominium Fees	405
Home Insurance	55
Car Payment	504
Car Insurance	288
RRSPs (10%)	
Total	**4427**
Variable Expenses (Average)	
Groceries	650
Electricity	110
Heating	170
Water	60
Telephone	60
Internet	45
Cable	65
Gasoline	250
Entertainment	200
Clothing	250
Vacation Fund	200
Gift Fund	100
Charity Fund	150
Total	
TOTAL EXPENSES	

1.

(a) What is Tomasz and Ioanna's **total monthly net income**?

(b) How much do they contribute to their **RRSP** each month?

(c) How much do they spend on the **mortgage** each month?

(d) What **percent** of their income is spent on **fixed expenses?**

2.

(a) What is the total of Tomasz and Ioanna's **variable expenses**?

(b) What is the total of **all** of their expenses?

(c) What is the **balance** of this month's budget?

Balance = *Total Expenses (Fixed and Variable) – Total Income*

CABILAN MATH ONLINE.COM IMAGINASIAN

Name: _____ Date: _____ MAP 4C1

3. Gordon works part-time after school and some weekends. His monthly budget for March is shown on the chart on the right.

Income ($)	
March 3–16	269.43
March 16–30	310.88
Total	
Expenses ($)	
College savings	150
Room and board	130
Save for car	125
Cellular telephone	40
Spending	90
Total	
Balance (Income – Expenses) =	

(a) What is Gordon's **total monthly <u>income</u>**?

(b) What are his **total monthly <u>expenses</u>**?

(c) Determine whether Gordon's balance for March is **positive** or **negative**

(d) Explain the meaning of his monthly balance

4. Simone lives with her parents and works part-time in a shoe store. Her monthly budget is shown on the chart on the right

Income ($)	
June 1–15	483.28
June 16–31	424.62
Total	
Expenses ($)	
Food	72
Clothes	110
Entertainment	185
Gifts	145
Total	
Balance (Income – Expenses) =	

(a) What is Simone's **total monthly <u>income</u>**?

(b) What is the total of Simone's **monthly <u>expenses</u>**?

(c) Determine whether Simone's balance is **positive** or **negative**

(d) Explain the meaning of her monthly balance

CABILAN MATH ONLINE.COM

Name: _____ Date: _____ MAP 4C1

SOLUTIONS

8.1

1. $68.94, $94.20, $88.02, $73.61

2. (a) $220.93 (b) $2651.16 (c) $2692.87

3. (i) $80 (ii) $120 (iii) $1040

4. $96.15

5. $107.69

6. (a) $12298 (b) $12567.78 (c) $39463.80

7. (i) $138.60 (ii) $602.25

8.2

1. (a) $214.17 (b) $14438

2. $987.33

3. $1510

4. (a) $555.77
   (b) Rent for 1-bedroom is more than 1 week's net income
   (c) Answers will vary

5. $621.15

8.3

1. (a) $43216.68 (b) $12834.96 (c) $32281.60

2. (a) $1014.75 (b) $459.58 (c) $78.73

3. $29256.12

4. (a) (i) $21315.84 (ii) 31.3%
   (b) (i) $46369.64 (ii) 88..3%

5. (i) $46367.72 (ii) 27.6%

CABILAN MATH ONLINE.COM

Name: _____ Date: _____ MAP 4C1

8.4

1.	(a)	$7750	(b)	$775	(c)	$2400	(d)	57.1%
2.	(a)	$2310	(b)	$6737	(c)	$1013		
3.	(a)	$580.31	(b)	$535	(c)	Positive	(d)	$45.31 extra
4.	(a)	$907.90	(b)	$512	(c)	Positive		
	(d)	$395.90 extra						

CABILAN MATH ONLINE.COM