

## 7.3 Budgets

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Name: \_\_\_\_\_

Block \_\_\_\_\_

**WARM-UP QUESTIONS:** treat this as a "quiz" try to do them on your own and without your notes...this will give you a good idea of where you're at!

- Calculate the weekly income for the following people:

- A dentist who makes \$85/hour who works 40 hours per week.

$$(85) \cdot (40) = \$3,400$$

- A student making minimum wage, \$12.65 for their first job at a bakery working 20 hours per week.

$$(12.65)(20) = \$253$$

- An electrician who makes \$38/hour for the first 35 hours of work and then time and a half for any additional hour. Calculate the electrician's income if they worked 45 hours in one week.

$$45\text{hr} = 35 \text{ reg-hr} + 10 \text{ overtime}$$
$$[(35)(\$38) + (10 \times 1.5)(\$38)] = \$1900$$

- Using the base formula  $I = P \times r \times t$  calculate the following:

- The amount of interest earned on an investment of \$500 at a rate of 12% invested for 3 years.

$$\begin{aligned} I &=? \\ P &= 500 \\ r &= 0.12 \\ t &= 3 \end{aligned}$$
$$I = P \cdot r \cdot t$$
$$I = (500)(0.12)(3)$$
$$I = \$180$$

- The amount of principal needed to earn \$48 of interest when invested at a rate of 4% for 5 years.

$$\begin{aligned} I &= 48 \\ P &=? \\ r &= 0.04 \\ t &= 5 \end{aligned}$$
$$\frac{I}{r \cdot t} = \frac{P}{r \cdot t} \Rightarrow P = \frac{I}{r \cdot t} = \frac{(48)}{(0.04)(5)} = \frac{48}{0.2} = \$240$$

- The amount of time needed for a principal of \$1500 invested at a rate of 6% to earn \$100 in interest.

$$\begin{aligned} I &= 100 \\ P &= 1500 \\ r &= 0.06 \\ t &=? \end{aligned}$$
$$\frac{I}{P \cdot r} = \frac{t}{P \cdot r} \Rightarrow t = \frac{I}{P \cdot r} = \frac{100}{(1500)(0.06)} = \frac{100}{90} = 1.11$$

BEDMAS  
=

$$1.11 \text{ yrs}$$

With a partner discuss what a **budget** is and write a definition below:

A budget is an estimate of expected income and expenses for a certain period of time.

What are **fixed expenses**?

expenses that are the same each month

Examples: mortgage, car insurance /payments, phone bill, subscriptions, cable/internet.

What are **variable expenses**?

expenses that can change each month depending on your activity / behavior

Examples:

phone, electricity, water bill, holiday/trips, food/groceries entertainment

Balanced budget - a budget in which the total income is equal to the total expenses

WHEN DEVELOPING A BUDGET THERE ARE 3 THINGS TO KEEP IN MIND:

1. **Tracking spending** : for at least a month, record everything you spend, even a purchase as small as a coffee. At the end of one month, specific spending habits will become obvious. These spending habits will allow you to develop an accurate budget you can stick to!

2. **Identify monthly income** for most high school students this will vary. Especially if you do not have a regular part time job. This could include things like babysitting, delivering newspapers, an allowance, etc. Try to make a budget based on the **LEAST** amount of money you are likely to make during the month.

3. **Consider Fixed + Variable expenses** : fixed expenses are the same each month, such as car payments, subscriptions, etc. Variable expenses can change each month, such as electricity and phone bills, cost/money spent on food or entertainment. If you track your expenses closely, it is possible to come up with an accurate estimate-best to estimate high to be safe!

#### Needs Versus Wants

Needs: What is necessary for survival. For example food, water, shelter, clothing, education, health care, safety and security.

Wants: The desire for things that are not necessary, but which add comfort and pleasure to our lives; something that would be nice to have.

Peer Pressure: People buy goods because their friends or neighbours (peers) have them. Sometimes people buy expensive items even when they can't afford them.

To tell is something is a WANT or a NEED.

	Yes	No
Can I live without this?		
Can I work without this?		
Would other people say this is a WANT?		

If you answer no to any question, it is a NEED. If you answer yes to all 3 questions, it is a WANT.

## Budget Worksheets

Since October, Andrea has been trying to follow the monthly budget she created below:

Item	\$360	Income (+)	Expense (-)	Balance
Income from work and allowance of \$40	\$400			+ 400.00
Phone plan		\$55		+ 345.00
Entertainment		\$35		+ 310.00
Clothing		\$70		+ 240.00
Miscellaneous		\$40		+ 200.00

"balance budget"

In December Andrea receives her \$40 allowance and a pay cheque of \$310.45 for her month of work. She spends \$53.89 on entertainment, \$60.00 on clothes and \$75.00 on miscellaneous items. She also pays her phone plan bill of \$55.

goal for savings.

- a. What is the balance of Andrea's actual budget at the end of the month of December?

Item	\$360.45	Income (+)	Expense (-)	Balance
Income from work and allowance of \$40	350.45			350.45
Phone plan		55.00		295.45
Entertainment		53.89		241.56
Clothing		60.00		181.56
Miscellaneous		75.00		106.56

Andrea's work income is variable  
(compare Oct to Dec)

- b) Does Andrea have any fixed income or fixed expenses?

• \$40 allowance • phone bill \$55

- c) Did Andrea stick to her budget? Why or why not?

No. she spent more on entertainment + misc.  
she spent less on clothing.

### Budgeting for an Event *3 ppl.*

Carl and his two friends choose a campsite that charges \$41.75 per night for up to four people. They estimate food will cost \$10 per person for each night of camping. They would like to spend one day kayaking. It is \$45.00 per person to rent a kayak for a day. If they camp for two nights and each person has \$100 to spend, will they have a balanced budget?

Cost of camping	Income (+)	Expense (-)	How much per person
campsite $\$41.75 \times 2$		83.50	
food $(\$10 \times 3) \times 2$		60.00	
Kayaking $\$45 \times 3$		135.00	
Each person $\$100 \times 3$	300.00		
Total	300.00	278.50	$\frac{\$278.50}{3} = \$92.83$ per person balanced.

### PRACTICE

Barry is in grade 10 and he lives with his parents; he doesn't pay rent, utilities, or food expenses. He works 15 hours per week at a pizza parlour, and his net income after taxes is \$600 a month. His older brother owns a car and lets him borrow it to drive to work when it is available for \$50 each month; otherwise Barry takes the bus. He really wants to buy a car, so any money that isn't spent at the end of the month goes towards savings for a used car. Analyze Barry's spending to determine why he is not on track to be able to purchase a car, and suggest what changes he could make to purchasing a car possible.

Fixed Expenses	Budget Goals	Actual Spending
Savings for Car	\$100	\$0
Cell Phone	\$75	\$100
Car Payment to Brother	\$50	\$100

Variable Expenses	Budget Goals	Actual Spending
Public Transportation	\$50	\$60
Entertainment	\$50	\$65
Personal Shopping	\$50	\$175
Miscellaneous	\$25	\$100
Total (Variable + Fixed)	\$400	\$600

Homework	Required	Extra Practice	Extension
Assignment #7.3	#1, 2, 3, 4, 5, 6, 8, 10	7, 9	11
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