

## 1. Home budgeting



Jane lives with her Grandmother, her brother Lightwell and her sister Bethany.

Jane's Grandmother cooks food and sells it to people in the village. She uses the money to buy things that the family needs. The money she gets is called her **income**.



Grandmother asks Jane to help her write a **home budget** for the things the family needs to buy in a month.

### Every week

Bananas	\$3
Butternut	\$2
Tomatoes	\$3
Onions	\$3
Avocados	\$3
Cucumbers	\$3
Chicken	\$10
Beef	\$6
Milk	\$2

Jane makes a list of things that the family buys.

They buy some things every week.

They buy other things less often.

### Every month

Mealie-meal	\$6
Sugar	\$2
Salt	\$1
Matches	\$1
Soap	\$3
Cooking oil	\$5

The family must spend money on other things too, like school fees, bus fares and a funeral plan. These are about \$30 per month. Grandmother's income is about \$200 each month. She wants to know if she will have any money left from her income after she has paid for the family's food and other needs. She wants to buy new uniforms and shoes for the children. She would like to buy gifts for friends too!



<u>List A Every week</u>	
Bananas	\$3
Butternut	\$2
Tomatoes	\$3
Onions	\$3
Avocados	\$3
Cucumbers	\$3
Chicken	\$10
Beef	\$6
Milk	\$2

<u>List B Every month</u>	
Mealie-meal	\$6
Sugar	\$2
Salt	\$1
Matches	\$1
Soap	\$3
Cooking oil	\$5

\$30 per month for other needs.

### Questions about Jane's family

1. How much money does the family spend each month?

*There are 4 weeks in a month. To find how much she spends on items in list A, find the total then multiply by 4. Now add this to the total of list B and add \$30 for the other expenses.  $4(A)+B+30=\text{monthly costs}$ .*

2. Is any money left after they have paid for the food?

*Subtract the answer to question 1 (costs) from \$200 (income).*

3. What do you think Grandmother should do with the extra money?

4. How many months would Grandmother need to save to buy a second-hand phone for \$60?

### Over to you

What is the source of income in your family?

Make a monthly budget like Jane's for your home.

Some things we buy are *needs*, like food. If we have any money left over, we can buy things that we *want*, but don't *need*.

Which of these are *needs*, and which are *wants*?

Potatoes	Biscuits	Oranges	Red Peppers
Ice cream	Phone credit	Flour	Chocolate

Can you think of 2 more things that you *want*, but do not *need*? Perhaps you can save up to buy them!

Answers	\$188	\$212	\$45 5 months
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## 2. Budgeting for a business

Jane's Grandmother wants to see if she can make a little more money from her business. She wants to make cakes to sell.



Grandmother will make candy cakes. Jane likes Grandmother's candy cakes!

Here is a list of the things that Grandmother needs to make 6 cakes.

### Recipe for 6 cakes

2 teaspoons yeast  
120 ml warm milk  
300 grams flour  
150 grams sugar  
 $\frac{1}{4}$  teaspoon salt  
70 grams butter  
1 egg  
2 teaspoons vanilla extract

#### For the glaze:

85 grams powdered sugar  
red or pink food colouring  
a little water



Sometimes Grandmother must make more than 6 cakes at a time!

1. Grandmother wants to make cakes for 12 people.

Write how much Grandmother needs of everything to make 12 cakes.

**What will she need if she makes 12 cakes?**



**12 is double 6. She will need to double everything.**

2. Grandmother wants to make cakes for 24 people. How much will she need of everything now?

**We must multiply everything by 4!**

**It will cost about \$12 to buy everything to make 24 cakes.**

**How much will it cost for 1 cake?**

- Can you help Jane find out how much one cake costs to make?
- If she sells each cake for \$1.00 how much **profit** will she make on each cake?

**Buy in bulk –**  
buy a lot of the same thing at the same time.

It will cost less if we **buy in bulk!**



**Profit –** the money that is left over after the bills have been paid.

Flour	2kg: \$5	10kg: \$20
Sugar	2kg: \$3	10kg: \$12
Yeast	1 pack: \$3	6 packs: \$15
Vanilla	30ml: \$1.50	150ml: \$7

- How much will Grandmother save on each if she buys these things in bulk?
- Can your family buy in bulk to save money?

<b>Answers</b>	
1. 4tsp yeast; 240ml milk; 600g flour; 300g sugar; ½tsp salt; 140g butter; 2 eggs; 4tsp vanilla extract; 170g powdered sugar.	
2. 8tsp yeast; 480ml milk; 1200g flour; 600g sugar; 1tsp salt; 280g butter; 4 eggs; 8tsp vanilla extract; 340g powdered sugar.	
3. 1 cake costs \$0.50 to make.	
4. She will make \$0.50 profit.	
5. Flour: \$5	Yeast: \$3
Sugar: \$3	Vanilla: \$0.50

### 3. Start-up and running costs

Aunty Anna wants to make school uniforms to sell. Aunty Anna is very good at making things, but she is not very good at planning how to spend her money.

Aunty Anna asks Jane to help.



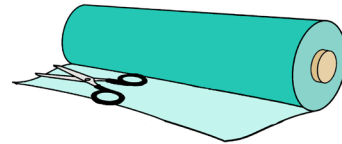
You must think about two different types of cost.

Start-up costs are things you will only buy once, like a sewing machine.

Running costs are things you will need to buy again and again, like fabric to make the dresses and shirts.

Here is the list of things Aunty Anna thinks she will need.

- Can you sort them into start-up and running costs?



iron

dressmaker's pins

skirt zip

sewing thread

sewing machine

scissors

fabric

shirt buttons

elastic

tape measure

thimble

needles

tailor's chalk



You must find out **how much** your start-up costs will be, so you know if you have enough money to set up your business.

Here is the list of Aunty Anna's start-up costs. Is it the same as yours?

Item	Cost (\$)
Sewing machine	2 000
Iron	500
Dressmaker's pins	11
Sewing machine needles	14
Hand sewing needles	5
Thimble	2
Tape measure	15
Scissors (large)	176
Scissors (small)	44
<b>Total</b>	



I must also buy some of each items from the running costs list, so I can begin making clothes. I will need some **thread, fabric, zips, buttons, elastic and tailor's chalk**.

I think the cost will be about **\$150**.

- How much money will Aunty Anna need altogether before she can start her business?

Answers

Start-up costs: iron, dressmaker's pins, sewing machine, needles, thimble, tape measure, scissors.  
Running costs: shirt buttons, skirt zips, elastic, sewing thread, fabric, tailor's chalk.  
Start-up costs: \$2,767.  
Total cost to start the business: \$2,917.



## 4. Income and expenses



I'm selling lots of clothes, but I'm getting a bit confused with the money that comes in and goes out.



It is very important to keep records of **income** and **expenses**, so you know if you are making a profit or not. I can help you with that!

Here are some pages from Aunty Anna's notebook.

### My Prices

Dresses:

Small \$18 Medium \$26 Large \$35

Shirts:

Small \$11 Medium \$14 Large \$19

Skirts:

Small \$15 Medium \$19 Large \$23

### **Income**

The amount of money the business gets in.

### **Expenses**

The amount of money the business pays out.

### Clothes I have sold

3<sup>rd</sup> Jan. 2 dresses (L), 3 shirts (M)

10<sup>th</sup> Jan. 1 skirt (L), 2 shirts (S)

15<sup>th</sup> Jan. 4 dresses (M)

24<sup>th</sup> Jan. 2 shirts (M), 2 skirts (M) 1 dress (S)

The money you get from selling clothes is your **income**.

First, we need to find your income for each of these dates.

- Use the list of prices to work out how much money Aunty Anna got on 3<sup>rd</sup>, 10<sup>th</sup>, 15<sup>th</sup> and 24<sup>th</sup> January.



Aunty Anna has kept **receipts** for everything she has had to buy.

Receipt 5th Jan

\$35 for repayment of loan.

Receipt 8th Jan

\$130 for 3 large rolls of fabric.

Receipt 13th Jan

\$67 for thread, buttons and zips.

Receipt 20th Jan

\$42 for buttons, zips and elastic.

### Receipt

Proof that you have paid for something

These receipts show your **expenses**.

We need to make a **table** to show your income and expenses in **date order**. After that we must find the total of each column.

That will tell us how much you have spent and how much you have made from selling clothes this month.

Here is the start of the table Jane made.

Thank you! I will write everything down like this now!

Income and expenses			Month: January
Date	Items	Income (\$)	Expense (\$)
3	2 dresses at \$35 each 3 shirts at \$14 each	112	
5	Loan repayment		35

- Copy the table. Fill in the rest of Aunty Anna's income and expenses. Take care to put the amounts in the right columns!
- Find the total of each column.

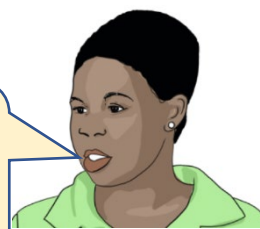
Answers			
Income:			
3 <sup>rd</sup> Jan:	2 x \$35 = \$70 and 3 x \$14 = \$42	Total \$112	
10 <sup>th</sup> Jan:	\$23 and 2 x \$11	Total \$45	
15 <sup>th</sup> Jan:	4 x \$26 = \$104		
24 <sup>th</sup> Jan:	2 x \$14 = \$28, 2 x 19 = 38 and \$18	Total \$84	
Total income:		\$345	
Total expenses:		5 <sup>th</sup> Jan: \$35 + 8 <sup>th</sup> Jan: \$130 + 13 <sup>th</sup> Jan: \$67 + 20 <sup>th</sup> Jan: \$42.	Total \$274



## 5. Profit and loss



I must make a **profit**, so I have money to pay for food and other things my family and I need to stay healthy.



To see if Aunty Anna made a **profit** or a **loss**, we must find the difference between her income and her expenses. Remember: **income** is money we get in, **expense** is money we pay out.

### Profit

When your income is **more** than your expenses.

### Loss

When your income is **less** than your expenses.

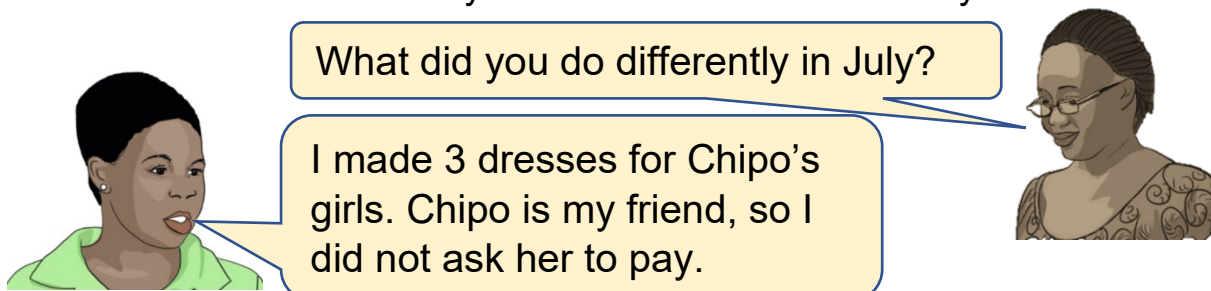
Here are Aunty Anna's expenses and income for June and July.

- Find the **total** of income and **total** of expenses for each month.
- Find the **difference** between the income and expenses to see if she made a profit or a loss. How much profit or loss did she make?

Income and expenses			Month: June
Date	Items	Income (\$)	Expense (\$)
1	4 dresses at \$18 each	72	
4	2 shirts at \$14 each	28	
5	Loan repayment		35
7	Dress fabric		120
10	3 skirts at \$23, 1 dress at 18	87	
15	Shirt fabric		140
20	Buttons, zips, elastic		20
23	3 shirts at \$26	78	
24	1 dress at \$18, 2 shirts at \$14, 1 dress at \$35	81	
	<b>Total</b>		

Income and expenses			Month: July
Date	Items	Income (\$)	Expense (\$)
3	2 dresses at \$26, 1 shirt at \$11, 1 skirt at \$19	82	
4	2 skirts at \$15 each	30	
5	Loan repayment		35
10	Skirt fabric		130
15	4 skirts at \$19	76	
18	Dress fabric		150
22	Buttons, zips, thread		40
28	2 shirts at \$11	22	
30	3 dresses at \$35 each	105	
	<b>Total</b>		

Grandmother looks at Aunt Anna's lists for June and July.



What did you do differently in July?

I made 3 dresses for Chipo's girls. Chipo is my friend, so I did not ask her to pay.

Aunt Anna made 1 small dress (\$18), 1 medium dress (\$26) and 1 large dress (\$35) for Chipo's girls.

- If she had asked Chipo to pay for the dresses, would she have made a profit or a loss? How much profit or loss?

When you run a business, you must always try to ask everyone to pay, even family, or you will not make a profit!

Answers

**June** Income: \$346 Expenses: \$315 Her income was greater than her expenses, so she made a profit.  $346 - 315 = 31$ . She made a profit of \$31.

**July** Income: \$315 Expenses: \$355 Her expenses were greater than her income, so she made a loss.  $355 - 315 = 40$ . She made a loss of \$40.

**If Chipo had paid:**

**Total price of dresses:** \$79. Aunt Anna's income would have been  $315 + 79 = 394$ . She would have made a profit.  $394 - 355 = 39$ . She would have made a profit of \$39.

## 6. Selling at the right price

Siphiwe is starting a business selling corn cobs beside the road.



She wants to know how much to ask people to pay for her cobs.



You must make sure you know all your costs.

I took out a loan to buy my grill and cooking tools. I pay back **\$30** per month, that's about a **dollar** each day of every month until it is paid back.



Maize cobs cost **\$5** for 10. I have to buy at least 10 cobs at a time.

I catch a bus to get to the best place to sell my cobs. That's **\$3** each day.

- What is the total of Siphiwe's daily expenses?

You must sell your cobs for more than it costs you to buy and make them.



I think I will make a profit if I sell my cobs for a **\$1** each. I am sure I can sell at least 10 cobs every day. I've seen others selling them at that price so I think people will buy them.

- How much profit will Siphiwe make each day if she sells 10 cobs for a **\$1** each?
- How much profit will she make if she sells 20 cobs each day?



Aunty Anna is very busy making clothes to sell, but she is not making much profit.

Is she selling at the right price?



Aunty Anna makes a table to see how much it costs to make the dresses, skirts and shirts and how much she sells them for.

Item	Cost to make (\$)	Sell price (\$)	Profit (\$)
Dress (s)	17	18	
Dress (m)	24	26	
Dress (l)	33	35	
Skirt (s)	14	15	
Skirt (m)	17.50	19	
Skirt (l)	21.50	23	
Shirt (s)	10	11	
Shirt (m)	13	14	
Shirt (l)	18.50	19	

Remember you must also repay your loan. You must make at least \$35 every month so you can pay that!



- How much profit does Aunty Anna make on each dress, skirt and shirt?
- How many medium dresses does Aunty Anna need to sell each month to make sure she can pay her loan?
- Do you think Aunty Anna is selling at the right price? What do you think she can do to make more profit? (She is already making as many things as she can each month, so can't make any more clothes!)

**Answers**

**Siphwe:** Her expenses are \$5 + \$3 + \$1 = \$9.

If she sells 10 cobs, she will make a profit of \$1.

If she sells 20 cobs, she will make a profit of \$6. (Her expenses will be \$10 + \$3 + \$1 = \$14).

**Aunty Anna's profit on clothes:**

Dress (s) \$1, Dress (m) \$2, Dress (l) \$2, Skirt (s) \$1, Skirt (m) \$1.50, Skirt (l) \$1.50, Shirt (s) \$1, Shirt (m) \$1, Shirt (l) \$0.50.

Aunty Anna must sell at least 18 dresses (m) to repay the loan each month.

Aunty Anna is not selling at the right price. She must put up her prices, then she will make more profit on each item of clothing that she sells. She must be careful not to put the prices up too much, though, or they will be too expensive. People will buy their clothes somewhere else!

[Adapted from IGATE-T CBE Module2a]

## 7. Raising money to start a business



Jane's cousin, Patience, wants to grow fruit trees. She will sell the fruit that she grows.

Patience has been selling firewood, making plates of food to sell to people in the village and selling wild fruit. She has saved quite a lot of money, but still needs \$200 more so she can set up her business.



When she is on the bus, Patience sees a poster that says,

*'Get any amount of money today, pay later!'*

She tells Jane that she is going to call the number and ask them if she can have \$200.



Be careful! It looks like an easy way to get money, but people like that may charge you a lot of **interest**!

### Interest

The extra amount that you pay back when you borrow money.

If you pay 10% interest, that means that you pay back all the loan, plus an extra 10%. 10% is the same as  $\frac{1}{10}$ .

So, if you borrow \$100, you will pay back \$100 + \$10 (\$110) because \$10 is 10% of \$100.

Patience calls the number on the poster.



Yes, you can have \$200 today. You will pay the loan with 60% interest in 10 equal payments.

- How much will Patience have to pay back altogether?
- How much will she have to pay in each payment?



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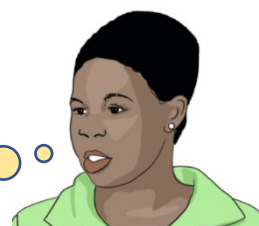
1. Charity takes out a loan for \$400 from her VSL. The interest rate is 10%. She pays it back in 10 equal payments.
  - a) How much does she pay altogether?
  - b) How much does she pay each month?
2. Daniel takes out a loan for \$300 from the bank. The interest rate is 20%. He pays it back in 10 equal payments.
  - a) How much does he pay altogether?
  - b) How much does he pay each month?
3. Josiah takes out a loan for \$200 from a man he meets in the street. The interest rate is 70%. He pays it back in 10 equal payments.
  - a) How much does he pay altogether?
  - b) How much does he pay each month?

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## 8.Planning for the future

Aunty Anna is thinking of the future.



One day, I will have my own clothes shop. I will make the clothes in a room at the back. I will give jobs to young people from the village.



You must make a business plan. You must plan to save money each year to buy the extra things you will need as your business grows.

This is Grandmother's business plan. It shows how much money she thinks she will **spend**, how much money she thinks she will **make** and how much money she thinks she will **save** each year for 3 years.



- Can you see Grandmother's start up costs in Year 1?
- Can you see which year Grandmother starts making cakes?
- Can you see when Grandmother takes out and pays back a loan?

### Activity 1: How much profit?

Item	Year 1			Year 2			Year 3	
	In(\$)	Out(\$)		In(\$)	Out(\$)		In(\$)	Out(\$)
Loan	500	-----		-----	-----		-----	-----
Loan repayment	-----	550		-----	-----		-----	-----
From savings	700	-----		-----	-----		-----	-----
10% of profit from last year	-----	-----		100	-----		300	-----
Insurance	-----	40		-----	50		-----	60
Cooking equipment	-----	1 100		-----	-----		-----	-----
Rent	-----	510		-----	650		-----	740
Meal ingredients	-----	2 000		-----	3 600		-----	4 000
Meals sold	4 000	-----		7 200	-----		8 000	-----
Cake making equipment	-----	-----		-----	-----		-----	300
Cake ingredients	-----	-----		-----	-----		-----	500
Cakes sold	-----	-----		-----	-----		1 000	-----
<b>Total</b>	<b>5 200</b>	<b>4 200</b>						
<b>Profit</b>	<b>1 000</b>							

Copy Grandmother's business plan into your book.

- Find the total of the 'in' column and the total of the 'out' column for Year 2.
- How much profit does Grandmother think she will make in Year 2?  
(*Subtract the total of the 'out' column from the total of the 'in' column to find the answer.*)
- Find the total of the 'in' column and the total of the 'out' column for Year 3.
- How much profit does Grandmother think she will make in Year 3?
- Grandmother thinks she will save 10% of the profit from Year 3. How much will she save? (*Divide the profit by 10 to find the answer.*)

### Activity 2: Challenge

- Make a business plan for Year 4 of Grandmother's business.

Answers	
<b>Year 2</b>	
a) IN: \$7 300    OUT: \$4 300	
b) PROFIT: \$7 300 - \$4 300 = \$3 000	
<b>Year 3</b>	
c) IN: \$9 300    OUT: \$5 600	
d) PROFIT: \$9 300 - \$5 600 = \$3 700	
e) \$3 700 ÷ 10 = \$370. 10% of \$3 700 is \$370.	

## 9. Working together

Patience is getting ready to grow fruit trees. She has a plot of land, but the soil is not very good. She sees that there is too much work for her to do on her own.



Patience's friend Mlindeli has an idea!



I went to Agricultural College. I know a lot about growing fruit trees. Let's start the business together as equal partners!

You must share the work out equally. You must write down everything you **decide**, everything you **do**, everything you **spend** and everything you **sell**. You must divide the costs and the profits equally.



Patience and Mlindeli agree to put an equal amount of money into the business and have an equal share of the profits.

They pay Esther, an accountant, to write their business agreement and to check their records every month. They agree to pay her 5% of their profits.

If you want your business to grow, you must save some of your profits every month. Try saving 5% each month for the first year.



To find 5% of an amount, first find 10% then divide the answer by 2.

In Year 1, Patience and Mlindeli pay Esther 5% and save 5%. They have 45% of the profit each.

1. What is 5% of:      a) \$100      b) \$200      c) \$300?
2. What is 45% of:      a) \$100      b) \$200      c) \$300

## 3. Copy the table and fill in the gaps.

Year 1 Month	Profit (\$)	Savings (\$) (5%)	Share of profits (\$)		
			Esther (5%)	Patience (45%)	Mlindeli (45%)
January	400	20	-----	-----	-----
February	450	-----	22.50	-----	-----
March	550	-----	-----	247.50	-----



If the numbers in the grey columns add up to the number in the 'profit' column of that row, you have the right answers!

In Year 2, Patience and Mlindeli decide to save **15%** of the profit each month. They still pay Esther **5%** per month.

4. What percentage (%) of the profit will Patience and Mlindeli each have this year?

## 5. Copy the table and fill in the gaps.

Year 2 Month	Profit (\$)	Savings 15% (\$)	Share of profits (\$)		
			Esther	Patience	Mlindeli
January	500		25		
February	450				180
March	620	93			

<p>Answers</p> <p>1a) 5% of \$100 is \$5    1b) 5% of \$200 is \$10    c) 5% of \$300 is \$15</p> <p>2a) 45% of \$100 is \$45    2b) 45% of \$200 is \$90    c) 45% of \$300 is \$135</p>						
<p>4) In year 2 Patience and Mlindeli will each have 40% of the profit.</p>						
Year 1	Month	Profit (\$)	Savings 5% (\$)	Share of profits (\$)	Esther	Mlindeli
	January	400	20	20		180
	February	450	22.50	22.50		202.50
	March	550	27.50	27.50		247.50
Year 2	Month	Profit (\$)	Savings 15%	Share of profits (\$)	Esther	Mlindeli
	January	500	75	25		200
	February	450	67.50	22.50		180
	March	620	93	31		248

## 10. Finding a gap in the market



Uncle David was sad because he did not have any work.



At school I have been reading a story about a lady who found a 'gap in the market'. That means she started a business selling something no-one else in the village was selling but that everyone needed! She made sure that she sold it at the right price. Her business is so successful that she has thirty people working for her now!

Uncle David noticed that laundry soap cost too much for people to buy it. He thought that, if he could make it himself and sell it at the right price, people would buy from him.

Uncle David had to find his start-up and running costs!



Here is a list of Uncle David's start-up and running costs.

### Activity 1

1. What is the total of his start-up costs?
2. What is the total of his running costs?

Item/s	Price
<b>Start-up costs</b>	
Buckets	\$ 33.50
1 x 1 litre measuring jug	\$ 4.25
Stirring stick	\$ 2.75
Apron and gloves	\$ 17.50
<b>Total</b>	
<b>Running costs (to make 93 bars)</b>	
Palm oil (16 litres)	\$ 45.30
Palm kernel oil (4 litres)	\$ 10.80
Caustic soda (3 kg)	\$ 9.60
Liquid sodium silicate (75 ml)	\$ 4.30
Energy, water, ice and cooking salt	\$ 11.00
Labour (3 hours)	\$ 12.00
<b>Total</b>	

Item/s	Price
<b>Start-up costs</b>	
Buckets	\$ 33.50
1 x 1 litre measuring jug	\$ 4.25
Stirring stick	\$ 2.75
Apron and gloves	\$ 17.50
<b>Total</b>	
<b>Running costs (to make 93 bars)</b>	
Palm oil (16 litres)	\$ 45.30
Palm kernel oil (4 litres)	\$ 10.80
Caustic soda (3 kg)	\$ 9.60
Liquid sodium silicate (75 ml)	\$ 4.30
Energy, water, ice and cooking salt	\$ 11.00
Labour (3 hours)	\$ 12.00
<b>Total</b>	

## Activity 2

- How much will it cost altogether to start the soap-making business?
- How much will it cost to make each bar of soap? (*Divide the total running costs by 93.*)

*Now try these ....*

- Uncle David sells bars of soap for \$1.20 per bar. How much profit does he make if he sells a) 100 bars    b) 150 bars?    c) 220 bars



Everyone in the village loves my laundry soap! I even sell soap to some shops in the town! My business has grown so much that I can give work to other people in the village as well!

I'm so glad Jane helped me to find the gap in the market!

Answers	Activity 1	1. Start-up costs: \$58    2. Running costs: \$93	Activity 2	1. Total cost to start the business: \$151    2. \$1 each
3. You can take the profit for each bar and multiply by the number of bars sold, or work out the total income and take away the total running costs	a) $\$0.2 \times 100 = \$20$ or $\$120 - \$100 = \$20$ b) $\$0.2 \times 150 = \$30$ or $\$180 - \$150 = \$30$ c) $\$0.2 \times 220 = \$44$ or $\$264 - \$220 = \$44$			