

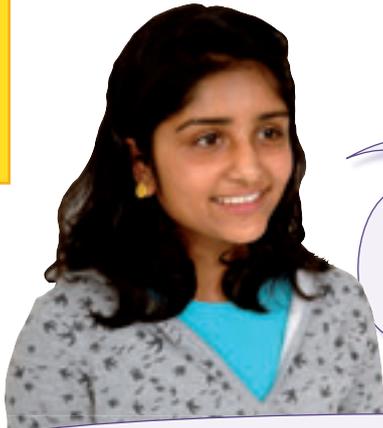
# Charu in a Pickle

Key financial ideas

- People set up a business to earn income and make a profit.
- The business will have start-up costs; other people can invest in the business to help cover these and earn money for themselves.
- Loans need to be paid back, usually with interest.

You need: a classmate, a calculator, a spreadsheet program (optional)

## ACTIVITY ONE



Charu is thinking about putting her cooking skills to work to earn an income. She talks it through with her mother.

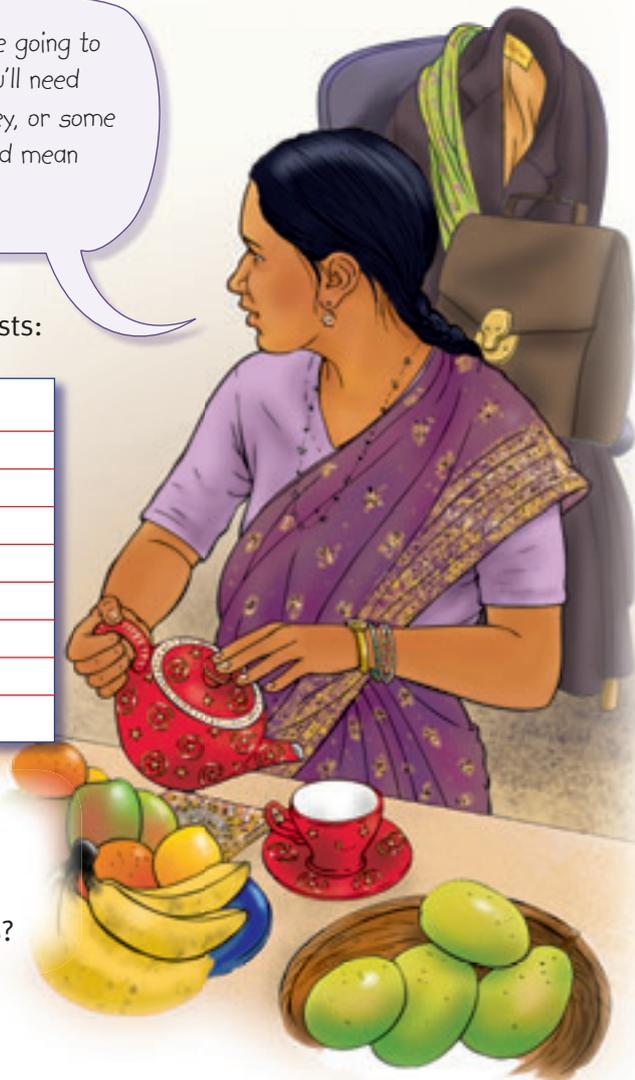
My friends say my mango chutney is the best they've ever tasted. I've got recipes for other chutneys, too. I could call my business Charu's Chutney!

You'll need to buy your own equipment and supplies if you're going to make lots of chutney. So, to get your business started, you'll need some money to use as capital. You could borrow that money, or some of it, anyway. You could also sell shares, although that would mean other people would own part of your business.

1. Charu creates this budget for her start-up costs:

|                                 |          |
|---------------------------------|----------|
| Two large pots                  | \$60.00  |
| Cooking utensils (spoons, etc.) | \$30.00  |
| Gas stove and bottle (filled)   | \$180.00 |
| Gas for bottle                  | \$19.50  |
| Jars                            | \$60.00  |
| Labels                          | \$35.00  |
| Advertising                     | \$60.00  |
| Ingredients                     | \$150.00 |
| Safety clothing                 | \$40.00  |

- a. What is the total cost of her budget?
- b. Is there anything else that Charu should think about including in the budget?
- c. How could she reduce her start-up costs?



2. Charu decides that \$700 would be enough to get her started. She looks into some loan offers, starting with Credit Services.

### Credit Services

- 1 year at 7 percent flat rate per annum
- Monthly repayments



Per annum means per year. A flat rate means that I'd pay interest over the whole year on the total of the money borrowed, even when I've paid some of it back.

- If Charu borrows \$700 and pays it all back in 1 year, how much interest will she pay?
- If Charu pays the same amount back each month, what would her monthly repayments be if she pays the loan off in 1 year?
- Discuss with a classmate why Charu might choose to take 2 years to pay off the loan.

3. Next, Charu visits Fair and Square Finance.

### Fair and Square Finance

- 1 year at 12 percent per annum
- Flexible, reducing loan
- Monthly repayments



A reducing loan means I only pay interest on the amount of loan money I haven't paid back. I can pay the money back faster if I want - that's why it's called flexible.

Fair and Square gives Charu the following spreadsheet to show how her loan repayments would work if she made equal repayments at the end of each month.

|    | A           | B              | C         | D                | E                 |
|----|-------------|----------------|-----------|------------------|-------------------|
| 0  | Month (end) | Unpaid balance | Repayment | Interest portion | Principal portion |
| 1  | 0           | \$700.00       |           |                  |                   |
| 2  | 1           | \$644.80       | \$62.20   | \$7.00           | \$55.20           |
| 3  | 2           | \$589.05       | \$62.20   | \$6.45           | \$55.75           |
| 4  | 3           | \$532.74       | \$62.20   | \$5.89           | \$56.31           |
| 5  | 4           | \$475.87       | \$62.20   | \$5.33           | \$56.87           |
| 6  | 5           | \$418.43       | \$62.20   | \$4.76           | \$57.44           |
| 7  | 6           | \$360.41       | \$62.20   | \$4.18           | \$58.02           |
| 8  | 7           | \$301.81       | \$62.20   | \$3.60           | \$58.60           |
| 9  | 8           | \$242.63       | \$62.20   | \$3.02           | \$59.18           |
| 10 | 9           | \$182.86       | \$62.20   | \$2.43           | \$59.77           |
| 11 | 10          | \$122.49       | \$62.20   | \$1.83           | \$60.37           |
| 12 | 11          | \$61.51        | \$62.20   | \$1.22           | \$60.98           |
| 13 | 12          | \$0.00         | \$62.13   | \$0.62           | \$61.51           |

- a. Discuss with your classmate what these words mean and how each amount is worked out for each repayment:
  - i. unpaid balance
  - ii. interest portion
  - iii. principal portion.
- b. How do the interest and principal portions on the Fair and Square chart change as the 12 months go by? Why does this happen?



4. Which is the better loan deal, Credit Services or Fair and Square? Explain your answer.



5. Charu's grandfather makes her an alternative loan offer.

I'll lend you up to \$700, but I won't charge you any interest for the first 6 months. After that, I will charge you 15 percent per annum on what you still owe me. That will encourage you to reduce your debt quickly.



Discuss with your classmate whether Charu would be better off financially if she borrows from Grandad instead of from the loan companies.

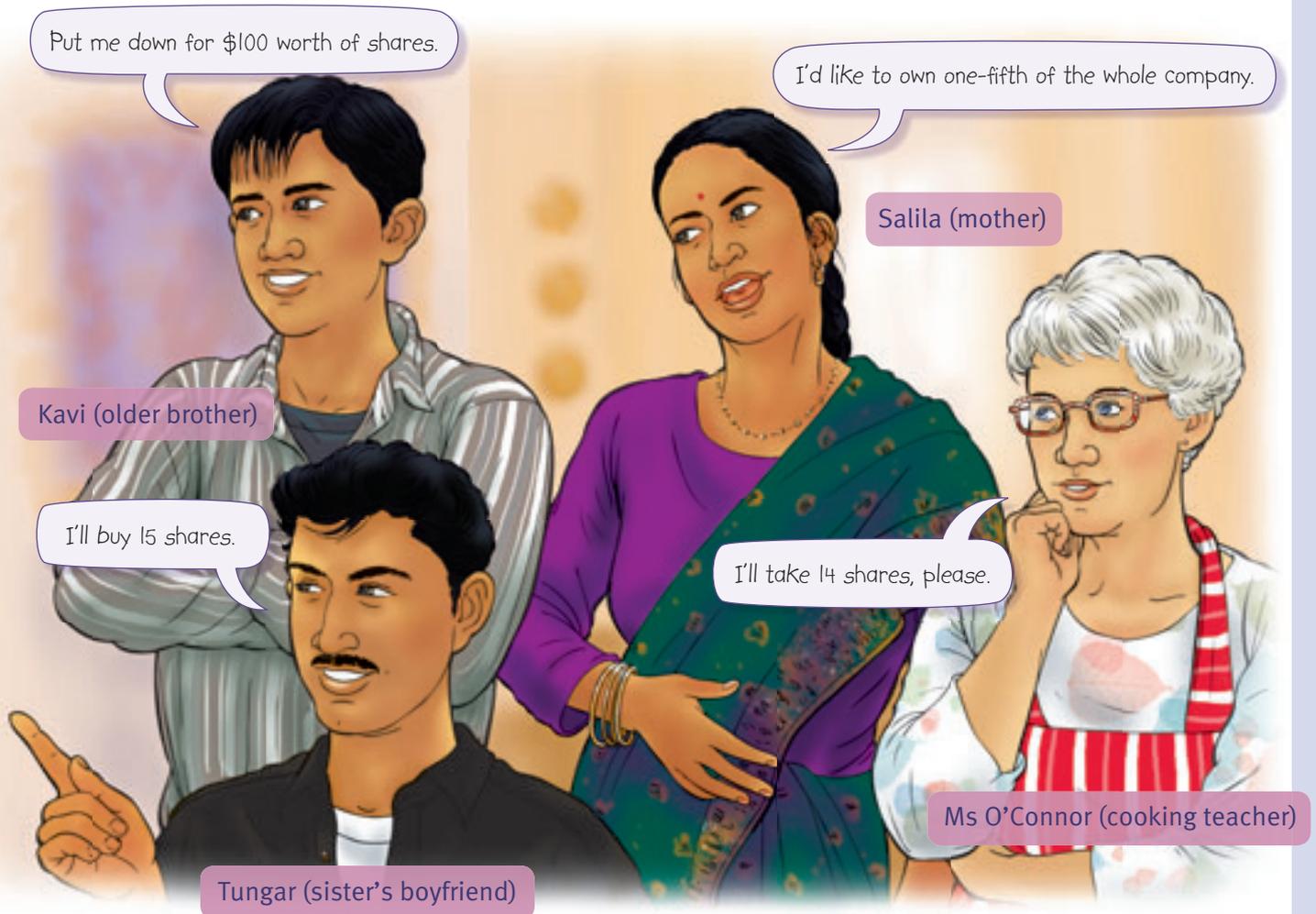
**ACTIVITY TWO**



Setting up a business is a lot more complicated than I first thought!

Charu decides to start up Charu's Chutney. She also decides to borrow \$350 from Grandad and to raise the other \$350 by selling shares in her business. This means that she is setting up a company. The people who buy shares will expect a share of the profit (if there is any). In return for not getting wages, Charu will allocate \$350 worth of shares to herself. (She'll own these debt-free once she has repaid Grandad.)

1. Charu decides to issue \$5 shares.
  - a. How many shares does she need to create for the whole company?
  - b. i. Charu wants to own more than half of the company. How many shares will she need to own?
    - ii. Discuss with a classmate why Charu wants to own more than half of the company.
2. Four people are keen to own shares in Charu's company.



- a. If Charu keeps just over half the shares for herself, are there enough \$5 shares left for each of these four people to get what they want? Explain your answer.
- b. How might Charu decide to split the shares?
- c. Draw and complete the table below to show what percentage of the whole company each person will own (based on your answer for question 2b):

|               | Total share value | Number of shares | Percent of company owned (rounded) |
|---------------|-------------------|------------------|------------------------------------|
| Whole company | \$700             | 140              | 100                                |
| Charu         | \$355             | 71               | 51                                 |
| Kavi          |                   |                  |                                    |
| Salila        |                   |                  |                                    |
| Tungar        |                   |                  |                                    |
| Ms O'Connor   |                   |                  |                                    |

- Profit is what is left from income after ongoing costs, such as ingredients, are met.
- A dividend is a share of the profit in relation to the number of shares held.

3. Based on anticipated sales, Charu expects that her company will use the first 6 months' profit to pay off Grandad's loan. In each of the next 6 months, she expects to pay herself wages of \$30 and to make about \$28.00 profit. This profit will be used to pay dividends to herself and the other shareholders.
- How much dividend should each share get at the end of 12 months?
  - What percentage of the \$5 cost of a share is that?
    - Is that a good return on the investment? Explain your answer.



4. Each shareholder will have to pay 25 percent of their dividend to the Inland Revenue Department in tax.
- Calculate how much tax each person will have to pay at the end of the first year.
  - How does that affect the percentage they earn from their shares?

If I earn \$70 as a dividend, my tax will be  $0.25 \times 70 = \$17.50$ . That means I'd get \$52.50 in my hand.



Kavi (older brother)

Reflective question

- What might be the consequences if Charu doesn't make a profit?

Key financial ideas

- To minimise costs and maximise profits, people making products to sell should shop around for the “best buys” for the materials they need.
- When businesses set prices, they consider:
  - what people are prepared to pay for their product
  - what price will give them the profit they seek.

It’s March, and Charu is comparing the prices at different markets so that she can find the cheapest place to buy her fresh ingredients.

**Freddie's Fruiterie**

|              |                         |
|--------------|-------------------------|
| Tomatoes     | \$1.75 per kg           |
| Onions       | 5 kg for \$6.00         |
| Mangoes      | \$2.00 each (av. 400 g) |
| Cauliflowers | \$1.50 each             |
| Cucumbers    | 6 for \$3.50            |

**Violet's Veges**

|              |                         |
|--------------|-------------------------|
| Tomatoes     | 4 kg for \$8.00         |
| Onions       | 10 kg for \$12.00       |
| Mangoes      | \$2.00 each (av. 400 g) |
| Cauliflowers | \$1.50 each             |
| Cucumbers    | 75c each                |

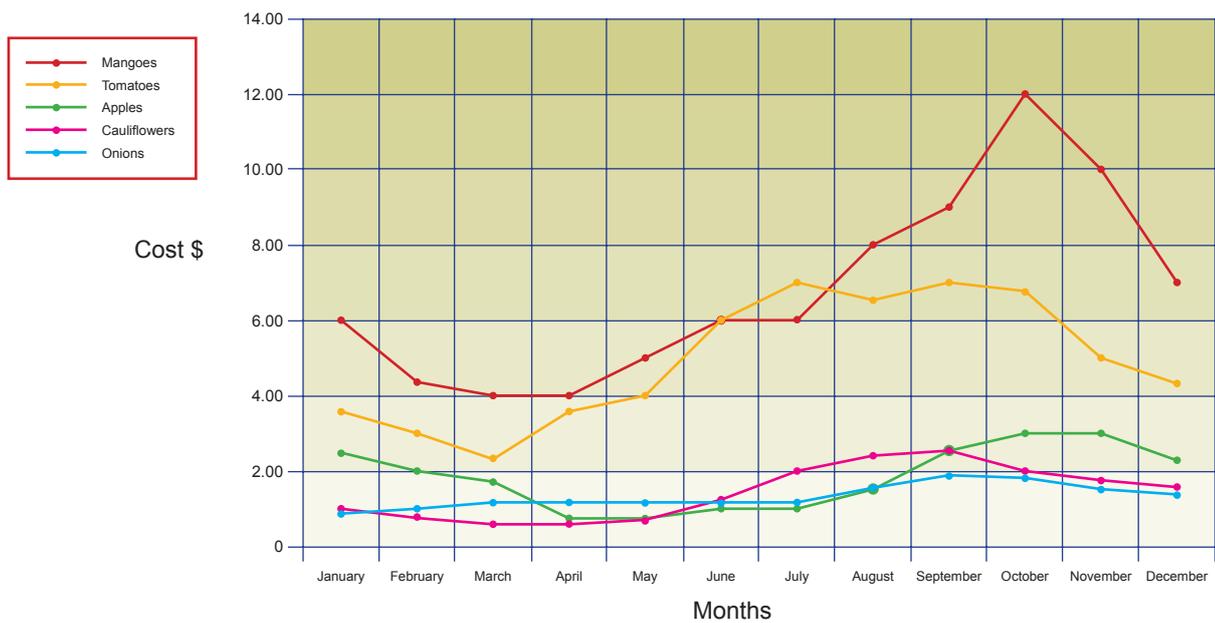
**Petra's Pantry**

|           |                          |              |               |
|-----------|--------------------------|--------------|---------------|
| Tomatoes  | 5 kg for \$9.50          | Onions       | \$1.50 per kg |
| Mangoes   | 3 for \$5.00 (av. 350 g) | Cauliflowers | 3 for \$4.00  |
| Cucumbers | 3 for \$1.50             |              |               |

- Charu expects to need 20 kilograms of tomatoes, 15 kilograms of onions, 10 kilograms of mangoes, 6 cauliflowers, and 12 cucumbers each week.
  - Which outlet gives her the best overall price?
  - How much money would she save by buying the produce from different stores?
  - Would it be worthwhile for her to do that?

2. Charu finds this chart showing how fruit and vegetable prices vary throughout the year.

Average Prices of Fruit and Vegetables



- Chutney keeps very well in jars. What is the best time of the year for Charu to buy the fruit and vegetables shown on the chart? Explain why.
- Based on this graph, what new chutney could Charu make, and when?
- Is Charu right in her thinking below? Explain why or why not.



Reflective questions

- Why do the prices of goods and services change?
- Do prices always go up?
- Do prices always change in cycles?