

MATHS MISSION

Art Centre Market Day

YOUR ROLE: ART CENTRE ENTERPRISE MANAGER

Your Mission

The local art centre is getting ready for a market stall, selling screen-printed tote bags made by artists at the centre.

You've been asked to work out the cost per bag, decide on a fair selling price, and work out how much of the profit will go back to the art centre.

Before You Begin

- Why do you think it matters to know exactly how much something costs to make before deciding a selling price?
- What would happen if a stall priced its bags too low? Too high?

 **Talk with a partner: have you ever bought something at a market stall?**

Background

Art centres are an important source of income and pride in many communities — turning artists' work into a real business. Running a stall well means covering costs, setting a fair price, and often giving something back to the centre.

Step 1 – Cost Per Bag

The materials for one batch cost \$96 in total, and make 24 tote bags.

Divide the total cost by the number of bags to find the cost of making just one bag.

- Cost per bag = $\$96 \div 24 = \underline{\hspace{2cm}}$

Step 2 – Setting a Fair Price

The stall is considering three possible selling prices. Complete the table to compare them, assuming all 24 bags sell.

Price Per Bag	Revenue (×24)	Cost	Profit
\$5	<u> </u>	\$96	<u> </u>
\$6	<u> </u>	\$96	<u> </u>
\$7	<u> </u>	\$96	<u> </u>

- Which price gives the highest profit if all bags sell?
-  **Compare your table with a partner. Do you agree on the best price?**

Step 3 – Giving Back

The stall gives 10% of its profit back to the art centre.

Using the price you think is fairest, calculate 10% of the profit.

- 10% of profit =

Make a Decision

Which price should the stall charge on market day?

- ☐ \$5 per bag
- ☐ \$6 per bag
- ☐ \$7 per bag

Explain your decision using your profit table — consider both the money made and whether people will actually buy at that price.

: _____

: _____

⚠️ Mission Challenge

Market day arrives, but only 18 of the 24 bags actually sell.

Recalculate the real revenue, profit, and art centre contribution at your chosen price.

Bags Sold	Revenue	Cost	Profit	10% to Art Centre
18	_____	\$96	_____	_____

How different is the real result from your Step 2 prediction? Why?

: _____

★ Extension Challenge

Write a rule connecting the price per bag and the number of bags sold to the money made.

What is your rule?

💡 *Talk with a partner before you write your rule.*

My idea: _____

🌐 Community Connection

Enterprises like this exist in many communities — art centres, fishing businesses, cafes, tour operators.

- Art centre
- Fishing or tour business
- Café or takeaway
- Market stall or fundraiser

Think of a real enterprise in or near your community. What do you think they need to think about with money?

: _____

💬 Reflection

Circle how you felt about today's mission:

😊 Confident 😊 Mostly understood 😊 Needed some help 😊 Found it difficult

What was the hardest decision to make today — the price, or something else?

: _____

★ Bonus Challenge

You're now advising someone starting a new stall. Write one tip about pricing you'd give them.

: _____

: _____