Finance

The objectives of these notes are to:

- Identify and list the costs to produce each unit of your product/service. (variable costs)
- Identify and list other costs associated with advertising, displays, cost for the school facilities etc. (fixed costs)
- Calculate total costs (Total costs = fixed costs + variable costs)
- Confirm the selling price for each unit (from your market research)
- Calculate Break-even.
    - This is when total revenue (price x quantity sold) = total costs (fixed + variable costs)
- Estimate the quantity the company expects to sell based on your market research results
- Calculate estimated sales revenue (sales revenue = price x quantity sold)
- Calculate estimated profit by preparing an estimated Income Statement

From the results from your market research you should be able to estimate how many products/services your company could sell. In order to know if you are making a profit you will first need to calculate the cost of your product/service and any other associated costs. To do this you need to dissect your product/service into individual components and then give each component a price.

Scrunchie & Co can identify the following cost components:

Material for each scrunchie (VC)	$ 0.40
Cotton & Elastic for each scrunchie (VC)	$ 0.10
Advertising material (FC)	$ 2.00
School Hall fee (FC)	$ 10.00

These costs will allow the company to make 40 items.

The next step is to calculate the break-even point. In order to break-even total revenue must cover total costs. It indicates how many units of your product/service are required to be sold before you make a profit.

BREAK EVEN (number of units): TOTAL REVENUE = TOTAL COSTS

Using a spread sheet create a table like Hariette's below.
She has entered details for her revenue and costs for a range of quantities, ask your teacher to show you how to construct the table using formulae.

Quantity	0	5	10	15	20	25	30	35	40
Sales Revenue	0	10	20	30	40	50	60	70	80
Variable Costs	0	2.5	5	7.5	10	12.5	15	17.5	20
Fixed Costs	12	12	12	12	12	12	12	12	12
Total Costs	12	14.5	17	19.5	22	24.5	27	29.5	32

This table does not confirm where the exact break-even point is so you need to use the information to draw a graph. Plot the SR, FC and TC lines.

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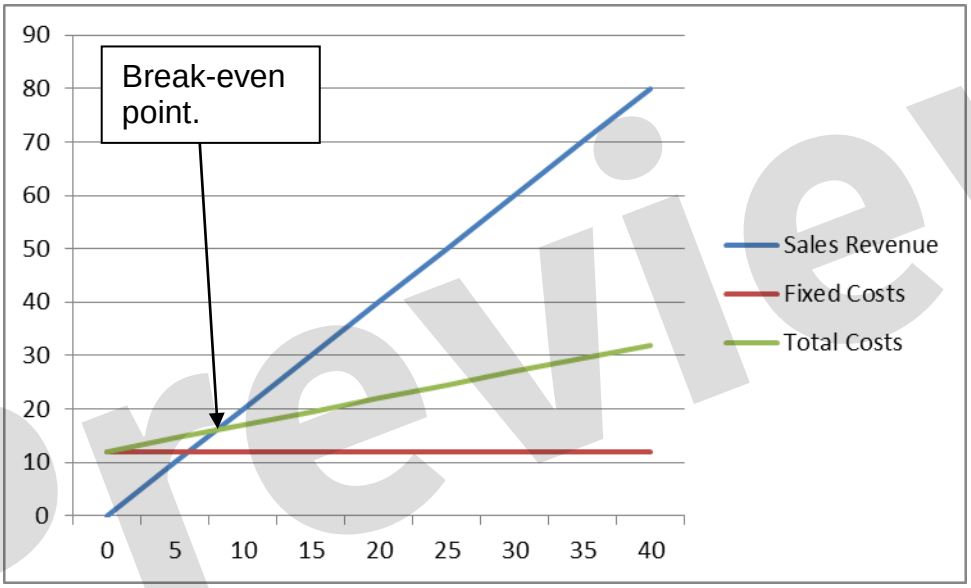
Hariette's Break Even Graph



From her graph Hariette can confirm that she will need to sell 8 scrunchies to break even.

She also checked this by using a formula method to calculate break even:

$$\frac{\text{Fixed costs}}{(\text{Selling price} - \text{variable cost})} = \frac{12}{(2-0.5)} = \frac{12}{1.50} = 8 \text{ scrunchies}$$

Hariette's market research indicated that they should be able to sell 40 scrunchies on Market Day.

This means that she has a Margin of Safety of 32 scrunchies.

Estimated sales – break even sales = Margin of Safety
40 - 8 = 32

In other words, her estimated sales figures can be wrong by 32 before she will be in a loss situation (where her total costs are more than her total revenue)

A large margin of safety means that the group should not get into a loss situation and the group can continue their planning to produce their product based on the selling price and costing figures they have provided.

You need to work through the steps above and calculate your own Break even and margin of safety to make sure that your costings will allow you to make a profit.

You will need to include this information in your presentation.

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Own calculations and notes:

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Once Hariette's group has sold 8 scrunchies and reached break even they are then making a profit of $1.50 on each sale they make. They want to know how much profit they might make if they sell all the 40 scrunchies that they make.

This is known as an Income Statement.

Estimated total sales revenue ($2 x 40)		$ 80.00
Less Cost of goods sold		
Material	$16.00	
Cotton and Elastic	$ 4.00	
Gross Profit		$ 60.00
Less Expenses		
Advertising materials	$ 2.00	
School Hall fee	$ 10.00	
Net Profit		$ 48.00

This shows that Hariette's group could make $48.00 for themselves as profit if they sell all the 40 scrunchies they make.

Complete your own forecast Income Statement and include it in your presentation.

Estimated total sales revenue		$
Less Cost of goods sold		
	$	
	$	
Gross Profit		$
Less Expenses		
	$	
School Hall fee	$ 10.00	
Net Profit		$

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