Finance: Breakeven

DRAWING GRAPHS: TIGER BOOKS & FABULOUS PROMOTIONS

Breakeven: The level of output where a business generates enough revenue to covers its costs.

To work out a firms breakeven you will need to know

- ✓ Fixed Costs (those that do not change with output)
- ✓ Variable Costs (the costs which change with output)
- ✓ Selling Price

You can then plot these figures on a graph to show the breakeven point, or use a calculation.

Example One – Tiger Books Ltd

Working out the breakeven for publishing a new book when;

- Fixed costs are £30,000
- Variable costs are £2 per book
- Books sell for £5 each

Number of books sold	Total Revenue (Price x No. of books sold)	Fixed Costs	Variable Costs (Variable cost per book x No. of books sold)	Total Costs (Fixed + Variable Costs)
0	0	30 000	0	30 000
5 000	25 000	30 000	10 000	40 000
10 000	50 000	30 000	20 000	50 000
15 000	75 000	30 000	30 000	60 000
20 000	100 000	30 000	40 000	70 000

Over to you, plot these lines on a graph (remember you only need to plot the FC, TC and TR line).

Example Two – Fabulous Promotions Ltd

Fabulous Promotions Ltd are putting on a concert. Their fixed costs for the show are £150,000. The variable cost per person is £10. The capacity of the arena is 25,000 people. The tickets are selling for £20 per person.

First, fill in the table using the information in the paragraph above.

Number of tickets sold	Total Revenue (Price x No of tickets sold)	Fixed Costs	Variable Costs (Variable cost per person x No of tickets sold)	Total Costs (Fixed + Variable Costs)
0				
5 000				
10 000				
15 000				
20 000				
25 000				

Second, try plotting the graph.

Ext: *Can you prove your table & graphs are correct by calculating the breakeven for Tiger Books and Fabulous Promotions?*

$$\textit{Breakeven} = \frac{\textit{Fixed costs}}{\textit{Selling price} - \textit{Variable cost}}$$

Tiger books =

Fabulous promotions =

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Answers

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Example Two – Fabulous Promotions Ltd

Number of tickets sold	Sales Revenue (Price x No of tickets sold)	Fixed Costs	Variable Costs (Variable cost per person x No of tickets sold)	Total Costs (Fixed + Variable Costs)
0	0	150 000	0	150 000
5 000	100 000	150 000	50 000	200 000
10 000	200 000	150 000	100 000	250 000
15 000	300 000	150 000	150 000	300 000
20 000	400 000	150 000	200 000	350 000
25 000	500 000	150 000	250 000	400 000

Ext: *Can you prove your table & graphs are correct by calculating the breakeven for Tiger Books and Fabulous Promotions?*

Tiger books = 10,000 books

Fabulous promotions =15,000 tickets

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