

### What are Costs?

Costs are the things businesses have to pay for in order to produce a product or provide a service.

### What are Fixed Costs?

Fixed costs are things a business pays for that do not change depending on the amount of a product a business makes – so these costs stay the same no matter how many products a business produces.

### Examples of Fixed Costs for a Cake Shop...

Rent for the shop would be a fixed cost because the cost will stay the same no matter how many cupcakes are produced and sold. The shop's insurance, staff wages and phone bill will also be examples of fixed costs.

### What are Variable Costs?

Variable costs are the costs a business pays that change depending on how many products a business produces – these costs increase when more products are made.

### Examples of Variable Costs for a Cake Shop...

The ingredients used in the cakes would be an example of a Variable Cost because this cost will increase if more cakes are made. The packaging for the cakes will also be a variable cost, if more cakes are made and sold then more packaging will be required.

### How are Total Costs calculated?

Total cost is just the fixed costs plus the variable costs. You will, however, need to account for the number of products made when including variable costs.

For example, if the shop's fixed costs are £1000 and their variable costs are £0.20 per cupcake, their total costs when they produce 500 cupcakes will be:

$$\begin{aligned} &\text{Fixed Costs} + (\text{Variable Cost Per Unit} \times \text{Units Produced}) \\ &\quad \quad \quad \text{£1000} + (\text{£0.20} \times 500) \\ &\quad \quad \quad \text{£1000} + \text{£100} = \text{£1100 Total Costs} \end{aligned}$$

### How to calculate Total Costs for 400 cupcakes when Fixed Costs are £2000 and Variable Costs are £0.45 per unit...

$$\begin{aligned} &\quad \quad \quad \text{£2000} + (\text{£0.45} \times 400) \\ &\quad \quad \quad \text{£2000} + \text{£180} = \text{£2180 Total Costs} \end{aligned}$$

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R064 Learning Outcome 2 Knowledge Organiser

### What is Revenue?

Revenue is the money generated from selling products or services. **It is not profit**, but the money coming into a business from sales.

### How is Total Revenue calculated?

Total Revenue is calculated by:  
$$\text{Selling Price} \times \text{Number of Sales}$$

### What is Profit?

Profit is the money left over from revenue once costs have been paid – it's the money a business makes once all costs have been covered.

### How is Total Profit calculated?

Total Profit is calculated by:  
$$\text{Total Revenue} - \text{Total Costs}$$

### What is Profit per Unit? How is it calculated?

Profit per Unit is the amount of profit a business makes on just one item sold.

Profit per Unit is calculated by:  
$$\text{Selling Price per Unit} - \text{Total Costs per Unit}$$

### Example calculations...

Selling Price = £1.20 per cake  
Fixed Costs = £350  
Variable Costs = £0.20 per cake

- Total Costs for 500 cakes =  $350 + (0.20 \times 500) = \text{£450}$
- Revenue for 500 cakes =  $500 \times 1.20 = \text{£600}$
- Profit per Unit =  $\text{£1.20} - (450 \div 500) = \text{£0.30}$

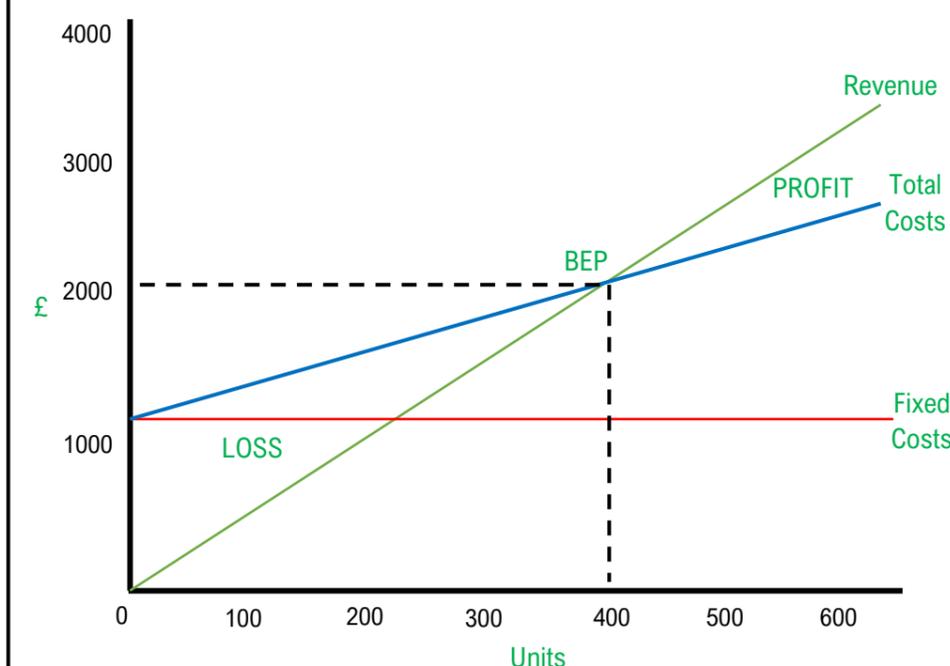
### What is Break-even?

Break-even is the point at which a business does not make a profit or a loss – its revenue from sales and its total costs are equal. The number of products that must be produced/sold to reach this point is called the Break-even Point.

### How is Break-even calculated?

The formula for Break-even is:  
$$\frac{\text{Fixed Costs}}{\text{Selling Price per Unit} - \text{Variable Cost per Unit}}$$

### A labelled Break-even graph...



This business's Break-even Point is 400 Units.

### Why is Break-even information useful for a business?

Businesses who calculate their Break-even point know what output they need in order to be profitable; so, they know how many products to produce or can generate a sales target in order for them to make a profit.

### What does increasing selling prices do to the Break-even Point?

Increasing selling prices will lower a business's Break-even Point, they will need to produce/sell less in order to Break-even.

### What impact does increased costs have on the Break-even Point?

An increase in either Fixed or Variable Costs (or both) will result in a higher Break-even Point for a business; they will need to produce/sell more in order to Break-even.