

COST ANALYSIS

YOUR MISSION:

Examine what information entrepreneurs must factor in when calculating production costs and setting a selling price. Determine your profit, consider opportunity costs in your design, and reflect on your decisions.

FOCUS: Calculating Pricing & Sales Strategy

MATERIALS:

- ✓ Pencil
- ✓ Calculator (Optional)

STUDENT DIRECTIONS:

Step 1: Shoe Design Concept

Before calculating costs, you need to identify your design concept because the concept determines the materials, colors, and style you will use. Knowing your target customer's age, personality, needs, and preferences helps ensure that your product appeals to them, and it guides decisions that directly affect the price.

Product Name: _____

Type of Product: _____

Describe your design concept:

Step 2: Calculate Materials Cost

Now it's time to figure out how much your materials will cost based on your Design Concept. Add up all the costs for the things you'll use, and **don't forget to include the \$22.99 for your base shoe.**

Item/Material	Quantity	Cost per Unit (\$)	Total
Base Shoe Product			
Paint Colors			
Shoelace			
Stencil Technique			
Other Materials			
Materials Cost			

Step 3: Calculate Labor Cost

Next, think about the time you'll spend making your product. Multiply the time for each task by your rate per hour to get your total labor cost.

Task	Time/Quantity	Rate (\$/hour)	Total (\$)
Product Making (painting/assembling)			
Additional Labor (finishing/touch-up)			
Labor Cost			

Step 4: Calculate Packaging Cost

Next, think about the time you'll spend making your product. Multiply the time for each task by your rate per hour to get your total labor cost.

Task	Time/Quantity	Rate (\$/hour)	Total (\$)
Product Box			
Tissue/Wrapping			
Label/Sticker			
Packaging Cost			

Step 5: Calculate Base Production Cost

Now, let's see the full picture. Add your **materials**, **labor**, and **packaging** costs together. This is your **Base Production Cost**; the minimum amount it costs to make your product.

Component	Total (\$)
Materials Cost	
Labor Cost	
Packaging Cost	
Base Production Cost	

Step 6: Set Profit Margin

Time to think about how much money you want to earn. Pick a profit margin percentage (like 30% or 50%) and calculate your profit using this formula:

Profit Margin = Base Production Cost × Markup %

If your calculator doesn't have a percent button, you can still solve it by turning the percentage into a decimal. Just move the decimal point two places to the left.

Examples:

30% → 0.30

12% → 0.12

Then multiply the base production cost by that decimal.

Example:

If the cost is \$10 and the markup is 30%, change 30% to 0.30, then do:

$\$10 \times 0.30 = \3 profit

Base Production Cost (\$)	Markup (%)	Profit Margin (\$)

- Why did you choose this profit margin?

Step 7: Break-even Price

Let's find out the break-even price or the minimum price you must charge to cover all your costs and avoid losing money.

Cost Component	Amount (\$)
Labor	
Packaging	
Total Fixed Cost (Labor + Packaging)	
Variable Cost (Material Cost)	
Number of Units	
Break-even Price per Unit	

Now that we have all that added, let's get the Break-even Price. Follow the formula: **Break-even Price = (Total Fixed Costs ÷ Number of Units) + Variable Cost Per Unit**

Formula	Calculation	Total (\$)
Total Fixed Cost ÷ Number of Units		
+ Variable Cost per Unit		

Break-Even Price per Shoe = _____

Step 8: Opportunity Cost

Let's find out the break-even price or the minimum price you must charge to cover all your costs and avoid losing money.

Decision/Item Skipped	Reason/Cost Impact

Step 9: Set Product Price

Now, decide your final selling price. Add your **profit margin** to your **base production cost**. Again, if your calculator doesn't have a percent button, convert the percentage to a decimal first before adding it to your base production cost.

Base Production Cost (\$)	Profit Margin (%)	Product Price (\$)

Step 10: Calculate Profit

Finally, check your earnings.

Profit = Product Price – Base Production Cost

Product Price (\$)	Base Production Cost (\$)	Profit (\$)

Step 11: Sales Strategy

- **Target Customers** – Who will most likely buy your product, and how many potential customers are there?

- **Sales Goal** – How many units do you need to sell to reach a \$10,000 profit?

- **Sales Pitch** – Why should customers choose your product over others? Please share your unique selling points, taglines, and sales pitch.
