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**Student Name:** \_\_\_\_\_

**Objective:** To demonstrate mastery of fractions, PBR, pricing strategies, and financial reporting.

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### **Inventory & Supply (Fractions & Basic Calculations)**

**Situation:** You have just purchased a bulk shipment of 60 pairs of sneakers. You need to organize them and calculate your initial costs.

1. **Sorting Stock:** You discover that 1/3 of the sneakers are Nike, 1/4 are Adidas, and the rest are Puma. How many pairs of **Puma** sneakers do you have?
  2. **Damaged Goods:** Upon inspection, you find that 1/12 of the total shipment is damaged and cannot be sold. How many pairs are **sellable**?
  3. **Cost Calculation:** The total bulk shipment cost you **₱4,800**. If you paid a flat rate for every pair (including the damaged ones), what is the basic **cost per pair**?
  4. **Operational Costs:** You spent an additional **₱150.50** on cleaning supplies and **₱75.25** on new laces for the sellable shoes. What is the **total** amount spent on supplies?
  5. **New Cost Basis:** If you distribute the supply cost (calculated in #4) evenly across only the **sellable** shoes (calculated in #2), how much additional cost must be added to *each* sellable pair? (Round to 2 decimal places).
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### **The Sales Analysis (Percentage, Base, Rate)**

**Situation:** You are analyzing your sales team's performance and customer demographics to plan your next move.

1. **Finding the Percentage (P):** You have a customer base of 200 people. If **35%** of them are "VIP members," how many VIP members do you have?
2. **Finding the Rate (R):** You sold 45 pairs of sneakers last month. If 9 of those pairs were "High-Tops," what **percent** of your sales were High-Tops?
3. **Finding the Base (B):** Your sales manager tells you that the **₱600** profit you made today represents exactly **20%** of your total sales revenue for the day. What was the **Total Sales Revenue**?
4. **Commission Calculation:** You hire a salesperson, Alex. You agree to pay him a **5% commission rate** on his total sales. If Alex sells **₱5,000** worth of shoes, how much commission does he earn?
5. **Tax Calculation:** A customer buys a pair of shoes for **₱120**. If the sales tax rate is **8%**, what is the **total amount** the customer must pay?

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## **Setting the Price (Mark-up & Mark-on)**

**Situation:** It's time to price your "Star Player" sneaker line. You want to ensure you make a profit.

(Note: Use Cost as the basis for Mark-up unless specified).

1. **Initial Mark-up:** You bought a limited edition sneaker for ₦100 (Cost). You want a **Mark-up Rate of 40%** based on cost. What is the **Mark-up amount** in dollars?
  2. **Selling Price:** Based on the mark-up calculated in Question 1, what is your initial **Selling Price**?
  3. **Margin Check:** Using your new Selling Price from Question 2, calculate the **Mark-up Rate based on Selling Price**. (Formula:  $\frac{\text{Markup}}{\text{Selling Price}}$ ). Round to the nearest percent.
  4. **The Mark-on:** The sneakers become very popular. You decide to increase the price by adding a **Mark-on of 10%** to the *current selling price*. What is the amount of the increase (the mark-on amount)?
  5. **New Price:** What is the **New Selling Price** after applying the Mark-on?
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## **(Mark-down & Mark-up Cancellation)**

**Situation:** The hype died down. The "Star Player" sneakers are sitting on the shelf. You need to adjust the price to get them moving.

1. **Mark-up Cancellation:** You realize the 10% price increase (from Scenario 3, Q4) was a mistake. You decide to cancel that increase and return the price to the original Selling Price (from Scenario 3, Q2). How much is the **Mark-up Cancellation** amount?
  2. **The Mark-down:** Even at the original price, they aren't selling. You decide to apply a **20% Mark-down rate** on the *current* price. What is the dollar amount of the discount?
  3. **Clearance Price:** What is the final **Clearance Selling Price** after the mark-down?
  4. **Profit Check:** Recall that the original cost of the shoe was ₦100. At this final Clearance Price, how much **Gross Profit** are you making per shoe?
  5. **Loss Analysis:** If you had to mark the shoes down to ₦90 to get rid of them, would you have a Profit or a Loss, and by how much?
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## **Scenario 5: The Final Report (Income Statement)**

**Situation:** The month is over. You need to prepare a simple Income Statement for "Kickstart Kicks" to see if the business is healthy.

**Data for the Month:**

- Total Sales: **₱15,000**
- Sales Returns & Allowances: **₱500**
- Sales Discounts: **₱200**
- Cost of Goods Sold (COGS): **₱6,000**
- Rent Expense: **₱1,500**
- Utilities Expense: **₱300**
- Salaries Expense: **₱2,000**

**Questions:**

1. **Net Sales:** Calculate the **Net Sales** (Total Sales minus Returns and Discounts).
2. **Gross Profit:** Calculate the **Gross Profit** (Net Sales minus COGS).
3. **Total Operating Expenses:** Calculate the sum of all Operating Expenses (Rent, Utilities, Salaries).
4. **Net Income:** Calculate the **Net Income** (Gross Profit minus Total Operating Expenses).
5. **Profit Margin:** Calculate the **Net Profit Margin** Round to the nearest whole percent.