Business Financial Metrics: Practice Sheet

This practice sheet is designed to test your understanding of the four key financial metrics for a new business: Profit Margin, Expense Ratio, Growth Rate, and Tax Obligations.

Question 1

A freelance graphic designer earns $4,000 in one month. The costs for software subscriptions, stock images, and a portion of home office utilities amount to $600. What is the designer's profit margin for the month?

- **Answer:** 85%
- **Explanation:**
  - First, find the net profit: Total Sales ($4,000) - Total Expenses ($600) = $3,400.
  - Then, calculate the profit margin: (Net Profit ($3,400) / Total Sales ($4,000)) * 100 = 85%.

Question 2

A small coffee shop generates $12,000 in sales. The total expenses for the month, including rent, employee wages, and coffee bean supplies, are $9,000. What is the shop's expense ratio?

- **Answer:** 75%
- **Explanation:**
  - The expense ratio is calculated by dividing total expenses by total sales.
  - (Total Expenses ($9,000) / Total Sales ($12,000)) * 100 = 75%. This means 75 cents of every dollar earned goes toward covering costs.

Question 3

An online candle business made $2,000 in sales in April and $2,500 in sales in May. What was the sales growth rate from April to May?

- **Answer:** 25%
- **Explanation:**
  - First, find the change in value: New Value ($2,500) - Old Value ($2,000) = $500.
  - Then, divide the change by the old value: ($500 / $2,000) * 100 = 25%.

Question 4

A local artisan sells handmade jewelry. In one month, they have $1,800 in taxable sales. If the local sales tax rate is 6.5%, how much money must the artisan set aside for the government?

- **Answer:** $117.00
- **Explanation:**

    - To find the tax amount, multiply the taxable sales by the sales tax rate (converted to a decimal).
    - $1,800 * 0.065 = $117.00. This amount is collected on behalf of the government and is not business income.

Question 5

A new tutoring service has $5,000 in revenue for its first quarter. The owner believes this is the amount they can take home. Why is this thinking incorrect?

- **Answer:** The owner has confused revenue with profit by not subtracting business expenses.
- **Explanation:**
    - Revenue is the total amount of money generated from sales. Profit is the amount left after all business expenses (like advertising, supplies, and software) are paid. The owner can only take home the profit.

Question 6

A baker sells custom cakes and has monthly sales of $3,500. Her expenses are: flour and sugar ($400), specialty ingredients ($350), electricity ($150), and marketing ($200). What is her profit margin?

- **Answer:** 68.6%
- **Explanation:**
    - First, sum all expenses: $400 + $350 + $150 + $200 = $1,100.
    - Next, find the net profit: Total Sales ($3,500) - Total Expenses ($1,100) = $2,400.
    - Finally, calculate the profit margin: ($2,400 / $3,500) * 100 ≈ 68.6%.

Question 7

A pet grooming business had sales of $4,000 in July with expenses of $1,000. In August, sales increased to $6,000 and expenses rose to $1,200. How did the expense ratio change from July to August?

- **Answer:** It decreased from 25% to 20%.
- **Explanation:**
    - **July Expense Ratio:** ($1,000 / $4,000) * 100 = 25%.
    - **August Expense Ratio:** ($1,200 / $6,000) * 100 = 20%.
    - The decrease shows the business became more operationally efficient as it grew.

Question 8

Due to a seasonal slowdown, a beachside cafe's sales dropped from $15,000 in July to $12,000 in August. What was the growth rate for this period?

- **Answer:** -20%
- **Explanation:**
  - A growth rate can be negative.
  - Change in Value: New Value ($12,000) - Old Value ($15,000) = -$3,000.
  - Growth Rate: (Change in Value (-$3,000) / Old Value ($15,000)) * 100 = -20%.

Question 9

A consultant brings in $10,000 in revenue. Their total expenses are $2,000. Which two metrics are correct for this period?

- **Answer:** Profit Margin is 80%, Expense Ratio is 20%
- **Explanation:**
  - **Expense Ratio:** ($2,000 / $10,000) * 100 = 20%.
  - **Net Profit:** $10,000 - $2,000 = $8,000.
  - **Profit Margin:** ($8,000 / $10,000) * 100 = 80%.
  - Notice that the Profit Margin (80%) and Expense Ratio (20%) add up to 100%.

Question 10

You are advising a new entrepreneur. Their business has a high profit margin of 70% but has shown a growth rate of only 2% over the last quarter. What is the most likely situation for this business?

- **Answer:** The business is stable and profitable but not expanding quickly.
- **Explanation:**
  - A high profit margin (70%) indicates that the business is very efficient and keeps a large portion of its earnings. A low growth rate (2%) indicates that sales are not increasing rapidly. This combination describes a healthy, stable business that is not currently in a phase of rapid expansion.