

The Language of Business – Homework (KEY)

Jan’s Bicycle Sales & Repair is a new business in the area. Jan is an avid bike rider – she competes in several road races each year. She also loves to talk to people about the health benefits of riding bicycles. That’s one of the main reasons she opened her business. She sells many different types of bicycles, and she repairs all types as well. Let’s practice “the language of business” as it relates to Jan’s business.

Here is a list of items that are associated with Jan’s business:

- \$50,000 of bikes in inventory today, ready to sell
- \$150,000 building (the store) & land
- \$10,000 in the business checking account
- \$80,000 loan to purchase the building and land
- \$40,000 operating loan to purchase the bikes so she can sell them
- \$7,500 depreciation on the building and equipment for the year
- \$30,000 of office equipment, displays, cash registers, etc. that she owns
- \$8,000 of interest paid this year on the loan to purchase the building
- \$2,000 of interest paid this year on the operating loan to purchase the bicycle inventory
- \$140,000 of bicycle sales for the year
- \$12,000 of property insurance for the year
- \$60,000 spent to purchase the bicycles she sold throughout the year
- \$5,000 in advertising expenses for the year
- \$11,000 that Jan owes to her bicycle parts supplier as of today – to be paid within 1 month
- \$20,000 that Al’s Bike Tours owes to Jan as of today for bicycles he purchased but hasn’t paid for yet
- \$25,000 of sales commission (based on the number of bikes sold) that Jan pays to her sales team

Please classify these items into the correct category. Each item belongs in only one category.

Revenues (Item)	(\$)
Bicycle Sales _____	\$140,000 _____
Operating Expenses (Item)	(\$)
Bicycles Purchased (COGS) _____	\$60,000 _____
Hired Labor _____	\$25,000 _____
Total Operating Expenses	\$85,000 _____

Overhead Expenses (Item)	(\$)
<u>Depreciation</u>	<u>\$7,500</u>
<u>Interest on Term Loan</u>	<u>\$8,000</u>
<u>Interest on Operating Loan</u>	<u>\$2,000</u>
<u>Property Insurance</u>	<u>\$12,000</u>
<u>Advertising Expense</u>	<u>\$5,000</u>
Total Overhead Expenses	<u>\$34,500</u>

Asset (Item)	(\$)
<u>Bicycle Inventory</u>	<u>\$50,000</u>
<u>Land & Building</u>	<u>\$150,000</u>
<u>Checking Account</u>	<u>\$10,000</u>
<u>Equipment, Displays, etc.</u>	<u>\$30,000</u>

Account Receivable (Item)	(\$)
<u>Al's Bike Tours</u>	<u>\$20,000</u>

Account Payable (Item)	(\$)
<u>Payable to Parts Supplier</u>	<u>\$11,000</u>

Operating Loan (Item)	(\$)
<u>Bicycle Inventory Loan</u>	<u>\$40,000</u>

Term Loan (Item)	(\$)
<u>Land & Building Loan</u>	<u>\$80,000</u>

Please calculate the Gross Margin for Jan's bike business for the year.

Total Revenues:	<u>\$ 140,000</u>
- Total Operating Expenses:	<u>\$ 85,000</u>
= Gross Margin:	<u>\$ 55,000</u>

Jan sold a total of 800 bicycles last year. Calculate Jan's Gross Margin per bicycle? This represents how much money is left over after paying the operating expenses for each bike sold.

\$55,000 / 800 bicycles = \$68.75/bicycle that can be used to pay the overhead expenses

Calculate the Profit (or Net Income) for Jan's business for the year.

Total Revenues:	\$ <u>140,000</u>
- Total Operating Expenses:	\$ <u>85,000</u>
- Total Overhead Expenses:	\$ <u>34,500</u>
= Profit:	\$ <u>20,500</u>

How much profit did Jan earn per bicycle that she sold? Briefly explain what this number means to Jan.

$$\text{\$20,500} / \text{800 bicycles} = \text{\$25.63/bicycle sold}$$

Because Jan has paid all of her operating costs and overhead costs, this \$25.63/bicycle is basically her "salary".

Calculate the Total Assets for Jan's business as of today.

Accounts Receivable:	\$ <u>20,000</u>
+ Assets:	\$ <u>240,000</u>
= Total Assets:	\$ <u>260,000</u>

Calculate the Total Liabilities for Jan's business as of today.

Accounts Payable:	\$ <u>11,000</u>
+ Operating Loan:	\$ <u>40,000</u>
+ Term Loan:	\$ <u>80,000</u>
= Total Liabilities:	\$ <u>131,000</u>

How much Equity (Net Worth) does Jan have in her business as of today? This is how much Jan has personally invested in her business so far.

Total Assets:	\$ <u>260,000</u>
- Total Liabilities:	\$ <u>131,000</u>
= Equity (Net Worth):	\$ <u>129,000</u>

What does this Equity number mean to Jan?

A couple of ways to describe it:

- it means she has invested a total of \$129,000 of her money into the business over time
- if she were to sell the business and pay off her liabilities, she would have \$129,000 left over (ignoring taxes and sales expenses)