

**Accounting I: Balance Sheet Pre-Work (SOLUTIONS)**

**Overview:**

This session introduces the balance sheet, which is a financial statement that provides a snapshot at a particular time of an organization's sources and uses of funds. Sources of funds are either liabilities, which are various forms of borrowing from non-owners, or equity, which are forms of funding by owners. Uses of funds are the organization's financial and non-financial assets. We focus first on the logic relationships among items in a simple balance sheet and then move to categorize transactions.

1. Balance Sheet Equation. If Total Assets are \$2,600 and Total Equity is \$1,600 then what is the value of Total Liabilities?

*The balance sheet equation states that:*

$$\text{Total Assets} = \text{Total Liabilities} + \text{Total Equity}$$

*Plugging in given values:*

$$2,600 = \text{Total Liabilities} + 1,600$$

*Rearranging, Total Liabilities = \$1,000*

2. Balance Sheet Simple. Fill in the missing information from the balance sheet.

Valley Technology Balance Sheet As of December 31, 2008 (amounts in thousands)			
Cash		Liabilities	2,900
Non-Cash Assets	3,500	Equity	3,500
Total Assets		Total Liabilities & Equity	

What is the value for Cash?

*First, compute the sum of the right side of the balance sheet:*

Valley Technology Balance Sheet As of December 31, 2008 (amounts in thousands)			
Cash		Liabilities	2,900
Non-Cash Assets	3,500	Equity	3,500
Total Assets		Total Liabilities & Equity	6,400

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Next, remembering the balance sheet equation, which states:

$$\text{Total Assets} = \text{Total Liabilities} + \text{Total Equity}$$

we have:

Valley Technology Balance Sheet As of December 31, 2008 (amounts in thousands)			
<b>Cash</b>		<b>Liabilities</b>	2,900
<b>Non-Cash Assets</b>	3,500	<b>Equity</b>	3,500
<b>Total Assets</b>	6,400	<b>Total Liabilities &amp; Equity</b>	6,400

Finally, we do a simple subtraction to compute the value we seek:

Valley Technology Balance Sheet As of December 31, 2008 (amounts in thousands)			
<b>Cash</b>	2,900	<b>Liabilities</b>	2,900
<b>Non-Cash Assets</b>	3,500	<b>Equity</b>	3,500
<b>Total Assets</b>	6,400	<b>Total Liabilities &amp; Equity</b>	6,400

$$\text{Cash} = \$2,900,000$$

3. Balance Sheet Update. Use the starting balance sheet and the list of changes to create an updated balance sheet and to answer the question.

Ruston Company Balance Sheet As of December 31, 2008 (amounts in thousands)			
<b>Cash</b>	3,800	<b>Liabilities</b>	3,500
<b>Non-Cash Assets</b>	2,500	<b>Equity</b>	2,800
<b>Total Assets</b>	6,300	<b>Total Liabilities &amp; Equity</b>	6,300

Between January 1 and March 31, 2009:

- a. Cash does not change
- b. Liabilities decrease by \$100,000
- c. Equity increases by \$500,000

What is the value for Liabilities on March 31, 2009?

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Begin by updating the starting balance sheet with the changes provided:

<i>Ruston Company Balance Sheet As of March 31, 2009 (amounts in thousands)</i>			
<b>Cash</b>	3,800	<b>Liabilities</b>	3,400
<b>Non-Cash Assets</b>		<b>Equity</b>	3,300
<b>Total Assets</b>		<b>Total Liabilities &amp; Equity</b>	

Next, compute the sum of the right side of the balance sheet:

<i>Ruston Company Balance Sheet As of March 31, 2009 (amounts in thousands)</i>			
<b>Cash</b>	3,800	<b>Liabilities</b>	3,400
<b>Non-Cash Assets</b>		<b>Equity</b>	3,300
<b>Total Assets</b>		<b>Total Liabilities &amp; Equity</b>	6,700

Then, remembering the balance sheet equation, which states:

$$\text{Total Assets} = \text{Total Liabilities} + \text{Total Equity}$$

we have:

<i>Ruston Company Balance Sheet As of March 31, 2009 (amounts in thousands)</i>			
<b>Cash</b>	3,800	<b>Liabilities</b>	3,400
<b>Non-Cash Assets</b>		<b>Equity</b>	3,300
<b>Total Assets</b>	6,700	<b>Total Liabilities &amp; Equity</b>	6,700

Finally, we do a simple subtraction to compute the value we seek:

<i>Ruston Company Balance Sheet As of March 31, 2009 (amounts in thousands)</i>			
<b>Cash</b>	3,800	<b>Liabilities</b>	3,400
<b>Non-Cash Assets</b>	2,900	<b>Equity</b>	3,300
<b>Total Assets</b>	6,700	<b>Total Liabilities &amp; Equity</b>	6,700

$$\text{Non-Cash Assets} = \$2,900,000$$

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4. Balance Sheet Equation Transactions. Evaluate each of the following transactions in terms of their effect on assets, liabilities, and equity.
- a. Purchase equipment for \$50,000 in cash
  - b. Borrow \$63,000 from a bank

What is the net change in Total Liabilities?

*Remember the following:*

*Uses of funds = Sources of funds*

*Assets = Liabilities + Equity*

*Assets are uses of funds in the form of money, credit extended to customers, and stuff owned*

*Liabilities and equity are sources of funds*

*Liabilities are forms of borrowing from non-owners*

*Equity is funding from owners*

*We will evaluate the impact of each transaction on assets, liabilities, and equity.*

*Then we will answer the question by summing up the net change in Total Liabilities.*

<i>Description</i>	<i>Assets</i>	=	<i>Liabilities</i>	+	<i>Equity</i>	<i>Explanation</i>
<b>a. Buy equipment for cash</b>	+50,000 -50,000	=	0	+	0	Transfer of assets from cash to equipment
<b>b. Borrow from a bank</b>	63,000	=	63,000	+	0	Cash asset increases and is offset by obligation to repay bank
<b>Totals</b>	63,000	=	63,000	+	0	

*The net change in Total Liabilities is \$63,000*