The Basic Accounting Equation

Assets = Liabilities + Equity *

BALANCE POINT

The Three Elements of the Accounting Equation

1. Assets (A) - Anything owned by a business that has economic value and will help the business earn revenue.

2. Liabilities (L) - Creditor claims on total assets resulting from past transactions; obligations of the entity to third parties.

3. Equity (E) - Ownership claims on total assets. * Name will vary depending upon the type of business, i.e. In a corporation the name is Stockholder's Equity; a sole proprietor uses the name Owner's Equity.

When any two elements of the equation are known, the third can always be calculated.

For Example:

If Assets = $50,000 and Liabilities = $18,500, what is the amount of Equity?

Using the Accounting Equation, plug in the known amounts:

A=L+E $50,000 = $18,500 + E

Subtract the Liabilities from both sides:

A-L=L-E $50,000 - $18,500 = $18,500 - $18,500 + E

Combine amounts:

A-L=E $31,500 = E

The equation MUST STAY IN BALANCE AT ALL TIMES - A change to any one element requires a corresponding change to at least one other element. Therefore, the purchase of an asset (an increase in asset) requires either a decrease in another asset (cash paid) or an increase in a liability (accounts payable) or an increase in equity (owner put asset into service in business).
For example, a corporation with Assets of $750,000, Liabilities of $570,000, and Stockholders equity of $180,000 purchases equipment at a cost of $120,000 and borrows the full amount to pay for the purchase. The assets (equipment) will increase by $120,000 and the liabilities (loan) increase by $120,000.

Equation before purchase:

\[ \text{A} = \text{L} + \text{E} \]

\[ \begin{align*}
$750,000 &= $570,000 + $180,000 \\
\text{A} &= \text{L} + \text{E}
\end{align*} \]

The business purchases equipment for $120,000 obtaining a loan for the full amount:

\[ \begin{align*}
$870,000 &= $690,000 + $180,000 \\
\text{A} &= \text{L} + \text{E}
\end{align*} \]

Assets have increased by $120,000 and the liabilities have increased by $120,000, so the equation has stayed in balance.

**Equity vs. Liabilities**

To illustrate how liabilities and equity work to stay in balance, consider the purchase of a home.

If the cost of the house is $200,000 and the buyer provides a down payment of $40,000 and obtains a mortgage for $160,000, the elements would be entered in the equation as shown below.

\[ \begin{align*}
\text{House} &= \text{Mortgage} + \text{Down Payment} \\
$200,000 &= $160,000 + $40,000 \\
\text{A} &= \text{L} + \text{E}
\end{align*} \]

After the first mortgage payment of $1,000 principal, the equation would change as shown. **

\[ \begin{align*}
$200,000 &= $159,000 + $41,000 \\
\text{A} &= \text{L} + \text{E}
\end{align*} \]

Notice that the equation stays in balance; the asset has not changed, but equity increases as the liability decreases.

**Note that this example does not consider the interest that is typically associated with this type of scenario.**
PRACTICE:

SECTION I
Calculate the missing amounts.

Assets = Liabilities + Equity

1. 410,000.00 = 200,000.00 + 

2. = 5,400.00 + 7,700.00

3. 24,255.00 = + 11,150.00

4. 1,150,000.00 = 545,700.00 + 

5. 750,500.00 = + 350,500.00

6. = 880,500.00 + 305,250.00

SECTION II
The following are attempts to restate the Basic Accounting Equation. Indicate which attempts are correct and which are incorrect.

1. Assets = Liabilities + Equity Correct / Incorrect

2. Liabilities + Assets = Equity Correct / Incorrect

3. Assets - Liabilities = Equity Correct / Incorrect

4. Assets = Equity + Liabilities Correct / Incorrect

5. Liabilities + Equity = Assets Correct / Incorrect

6. Equity - Assets = Liabilities Correct / Incorrect

7. Assets = Liabilities - Equity Correct / Incorrect

SECTION III
Answer each of the following:

The assets of Some Company are $250,000 and the total equity is $95,000. What is the amount of total liabilities?

The liabilities of Some Company are $45,000 and the total equity is $21,000. What is the amount of Some Company's total assets?

The total assets of Some Company are $1,345,000 and its liabilities are equal to one half the assets. What is the amount of total equity?
## Answers:

<table>
<thead>
<tr>
<th>Section I</th>
<th>Section II</th>
<th>Section III</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 210,000.00</td>
<td>1. Correct</td>
<td>1. 155,000.00</td>
</tr>
<tr>
<td>2. 13,100.00</td>
<td>2. Incorrect</td>
<td>2. 66,000.00</td>
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<tr>
<td>3. 13,105.00</td>
<td>3. Correct</td>
<td>3. 672,500.00</td>
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<td>4. 604,300.00</td>
<td>4. Correct</td>
<td></td>
</tr>
<tr>
<td>5. 400,000.00</td>
<td>5. Correct</td>
<td></td>
</tr>
<tr>
<td>6. 1,185,750.00</td>
<td>6. Incorrect</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Incorrect</td>
<td></td>
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</table>