CHAPTER LEARNING OBJECTIVES:

MAJOR:
- Define and explain a Product cost under the variable costing definition.
- Calculate total cost, per unit cost and ending inventory values under variable costing.
- Memorize and use the Absorption-Variable Cost Reconciliation formula.

MINOR:
- Identify and calculate financial impacts when production increases or decreases, with all other possible variables remaining unchanged.

ABSORPTION (FULL) COSTING uses the GAAP method of valuing inventories. GAAP requires all production costs to be included as a product cost. I.e., DM, DL, VFOH & FFOH. Therefore, if there is any ending inventory, it would include some DM, DL, VFOH and, of course, some FFOH (a pro-rata share).

VARIABLE (DIRECT) COSTING on the other hand excludes FFOH from the definition (calculation) of a Product Cost. Variable costing treats FFOH as a Period Cost. Remember, all period costs are expensed, in full, in the period incurred.

Given: VC per unit and FC in total remain constant then,
- If inventory increases (production exceeds sales), net income under Absorption Costing would be larger and net income under Variable Costing would be smaller. This results from the treatment of FFOH. Some FFOH costs are deferred in the ending inventory along with the variable items (DM, DL & VFOH). I.e., part of the fixed costs are not expensed in the period incurred.

- If inventory decreases (sales exceed production) the opposite would occur. Net income under Absorption Costing would be smaller and net income under Variable Costing would be higher. Some of last period’s FFOH that was deferred in inventory will be released into expense (COGS) under Absorption Costing, but this same FFOH was expensed in full last period under Variable Costing.

UNDER ABSORPTION COSTING by increasing production to a level higher than it would otherwise be, (no change in sales) one could increase net income. Also, by decreasing production to a level lower than it would otherwise be, one could decrease net income. This cannot occur in Variable Costing.

ABSORPTION-VARIABLE COST RECONCILIATION FORMULA:

\[
\frac{\text{FFOH}}{\text{units produced}} \times (\text{beginning inventory in units} - \text{ending inventory in units}) = \text{difference in net income}
\]

OR

\[
\frac{\text{FFOH}}{\text{units produced}} \times (\text{units produced} - \text{units sold}) = \text{difference in net income}
\]

Both formulas above are, in essence, the same because the difference in beginning and ending inventory, in units (25-30=5), is the same as the difference between units produced and units sold (70-65=5) during that period. In absolute terms (no negative numbers).

E.g.,

<table>
<thead>
<tr>
<th></th>
<th>In units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beginning inventory</td>
<td>25</td>
</tr>
<tr>
<td>Units produced</td>
<td>+ 70</td>
</tr>
<tr>
<td>Units available</td>
<td>95</td>
</tr>
<tr>
<td>Units sold</td>
<td>- 65</td>
</tr>
<tr>
<td>Ending inventory</td>
<td>- 30</td>
</tr>
</tbody>
</table>