

Apply Deductive Reasoning

Vocabulary	Definition	Example
<p>DEDUCTIVE REASONING</p>	<p>Using facts, definitions, <u>accepted properties</u>, and <u>laws of logic</u> to form a <u>logical argument</u></p>	
LAWS of LOGIC		
<p>LAW OF DETACHMENT LD</p>	<p>If the hypothesis of a true conditional statement is true, then the <u>conclusion</u> is also true.</p> <p style="text-align: right;">∴ therefore</p>	$\begin{array}{l} \boxed{P} \rightarrow Q \\ \boxed{P} \\ \hline \therefore Q \end{array}$ <p>If <u>two angles have the same measure</u>, then <u>they are congruent</u>.</p> <p>You know that the <u>$m\angle A = m\angle B$</u>.</p> <p>∴ <u>$\angle A \cong \angle B$</u>.</p>
<p>LAW OF SYLLOGISM LS</p>	<p>If P, then Q. ← If Q, then R. ← If these are true, <hr/>If P, then R. ← then this is true.</p>	<p>If <u>you eat lunch today</u>, then <u>you will order a sandwich</u>. If <u>you order a sandwich</u>, then <u>you will get chips</u>.</p> <p>If <u>you eat lunch today</u>, then <u>you will get chips</u>.</p>

~~If P, then Q.~~
~~If R, then P.~~

If R, then Q.

$$\begin{array}{l} P \rightarrow Q \\ Q \rightarrow R \\ \hline P \rightarrow R \end{array}$$