

Law of Syllogism

If  $p \rightarrow q$  &  $q \rightarrow r$ , then  $p \rightarrow r$ .  
(transitive property)

Law of Detachment

If  $p \rightarrow q$  and  $p$  is true, then  $q$  is true.  
(substitution property)

Task 1: Law of Syllogism

If I study for my math test, then I will make an A.  
If I make an A, then my parents will take me out to dinner.

$\therefore$  If I study for my math test, then my parents will take me out to dinner.

In-line skaters live dangerously.

If you live dangerously, then you like to dance.  
 $\therefore$  If you are an in-line skater, then you like to dance.

Task 2: Law of Detachment

If you cheat on a test, then you will get kicked out of college.

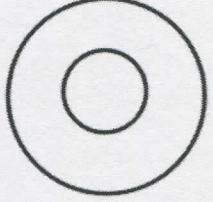
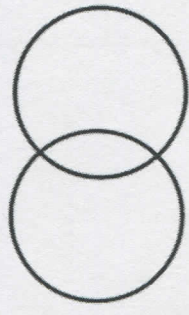
Chad cheated on his test.  
 $\therefore$  Chad was kicked out of college.

If someone is Texan, then he is an American.

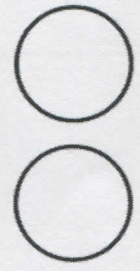
Jim is a Texan.  
 $\therefore$  Jim is American

Click it before you get a ticket.  
Liz got a ticket.  
 $\therefore$  NO CONCLUSION!

Sometimes Always



Never



Still need help with: