

Directions: Convert each statement into an equivalent if...then... statement and then diagram it.

Anyone with a bicycle can meet me at the park.

If you have a bicycle, you are able to meet me at the park. ($B \rightarrow \text{Park}$)

If you are unable to meet me at the park, you do not have a bicycle. ($\sim\text{Park} \rightarrow \sim B$)

No one over the age of 18 will be drafted into the army.

If you are over the age of 18, you will not be drafted into the army. ($18+ \rightarrow \sim\text{DA}$)

If you are drafted into the army, you are not over the age of 18. ($\text{DA} \rightarrow \sim 18+$)

All girls like tall boys.

If you are a girl, you like tall boys. ($G \rightarrow \text{LTB}$)

If you do not like tall boys, then you are not a girl. ($\sim\text{LTB} \rightarrow \sim G$)

The only way to get in shape is to exercise.

If you are in shape (or want to get in shape), then you must have exercised (or you must exercise). ($\text{IS} \rightarrow \text{E}$)

If you do not exercise, you will not get in shape. ($\sim\text{E} \rightarrow \sim\text{IS}$)

Whenever I fall down the stairs, my sister laughs at me.

If I fall down the stairs, my sister laughs at me. ($\text{FD} \rightarrow \text{SL}$)

If my sister is not laughing at me, I did not just fall down the stairs. ($\sim\text{SL} \rightarrow \sim\text{FD}$)

Broken noses are always a result of physical abuse.

If you have a broken nose, it is the result of physical abuse. ($\text{BN} \rightarrow \text{PA}$)

If you have not been physically abused, then you do not have a broken nose. ($\sim\text{PA} \rightarrow \sim\text{BN}$)

People who vote without doing their research undermine the democratic process.

If you vote without doing research, you undermine the democratic process. ($\text{VWR} \rightarrow \text{Undermine}$)

If you are not undermining the democratic process, then you are not voting without doing research. ($\sim\text{Undermine} \rightarrow \sim\text{VWR}$)

Guitar players are required to learn the basic chord shapes.

If you are a guitar player, you must learn the basic chord shapes. ($\text{GP} \rightarrow \text{BCS}$)

If you do not need to learn the basic chord shapes, you are not a guitar player. ($\sim\text{BCS} \rightarrow \sim\text{GP}$)