

Review

Tuesday, September 25, 2018 12:51 PM

If, only if, if & only if

ex. The number 4 is even if and only if 4 is divisible by 2.

"equal statements"

$\underbrace{4 \text{ is even}}_E$ if $\underbrace{4 \text{ is divisible by 2}}_D$ and $\underbrace{4 \text{ is even}}_E$ ~~only if~~ $\underbrace{4 \text{ is divisible by 2}}_D$
 If Then

$D \rightarrow E$ and $E \rightarrow D$

E	D	$E \rightarrow D$	$D \rightarrow E$	$D \leftrightarrow E$ $(E \rightarrow D) \wedge (D \rightarrow E)$
T	T			
T	F			
F	T			
T	F			