Quiz 3 Workspace
Wednesday, March 27, 2024   4:25 PM

7) Logical Conjunction

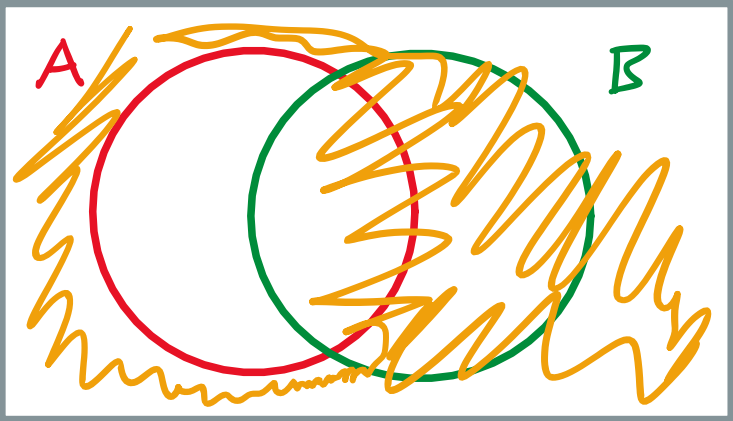**8) Logical Disjunction**

A   B

$A + B$
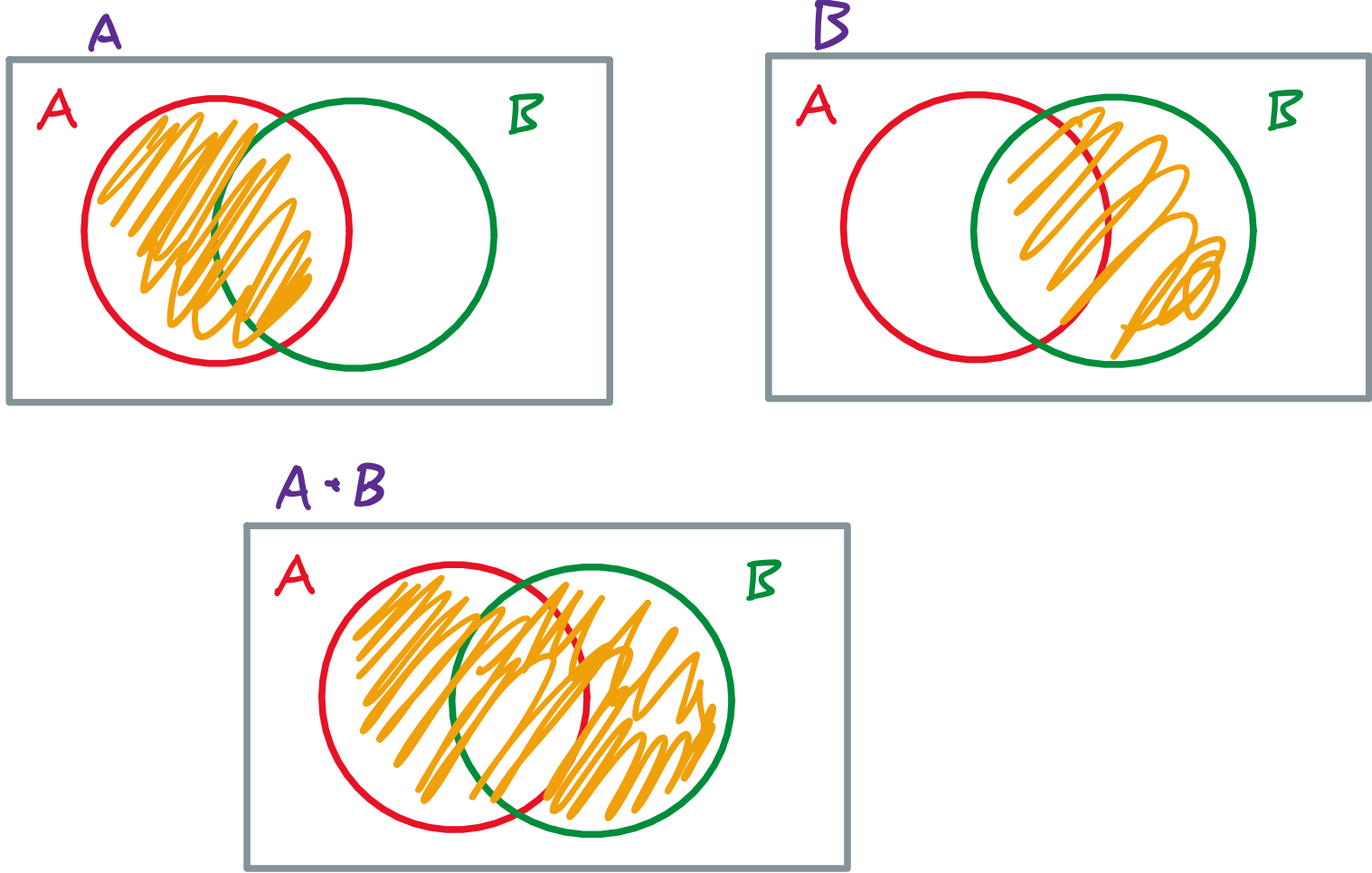
10) $A \Rightarrow B$

A	B	$A \Rightarrow B$
T	T	T
T	F	F
F	T	T
F	F	T

$A\bar{B}$ is false

$\bar{A} + B$ is true
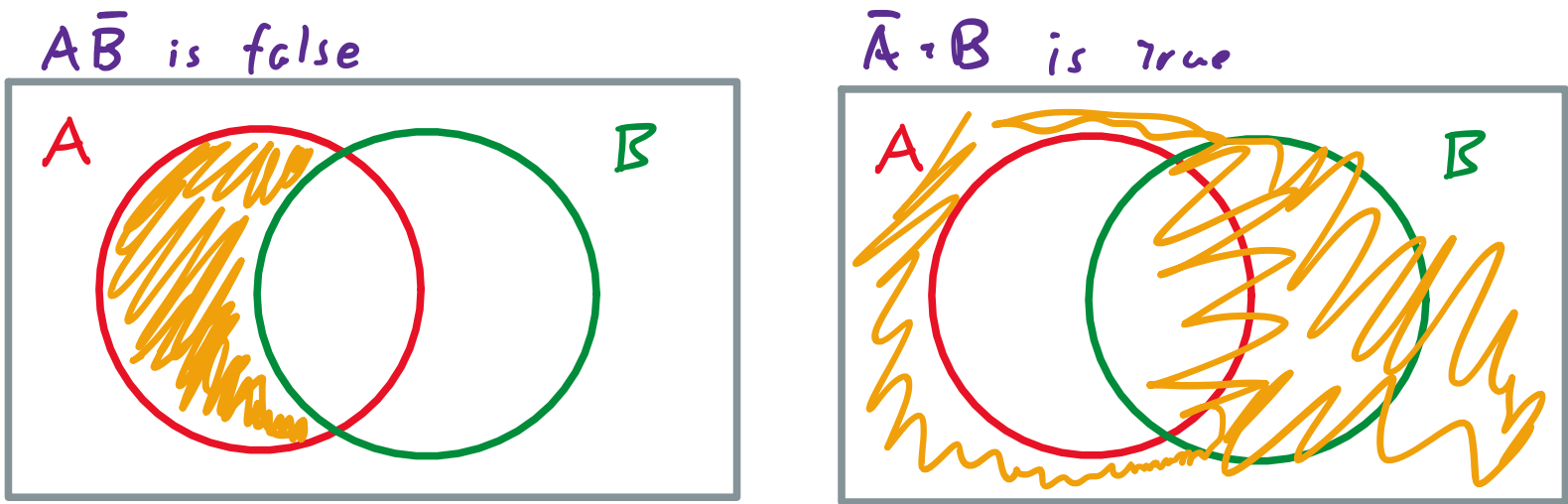
representation of $A \Rightarrow B$

11) $\overline{C(A+B)} = \overline{CA + CB}$
distribute

CA   CB $\bar{A}\bar{B}$ $\bar{C}$

$CA + CB$ $\overline{CA + CB}$ $\bar{C} + \bar{A}\bar{B}$

12)

$\overline{AB}$ $\neq$ $\bar{A}\bar{B}$

13) $\overline{A+B}$ $\neq$ $\bar{A}$ $\cdot$ $\bar{B}$
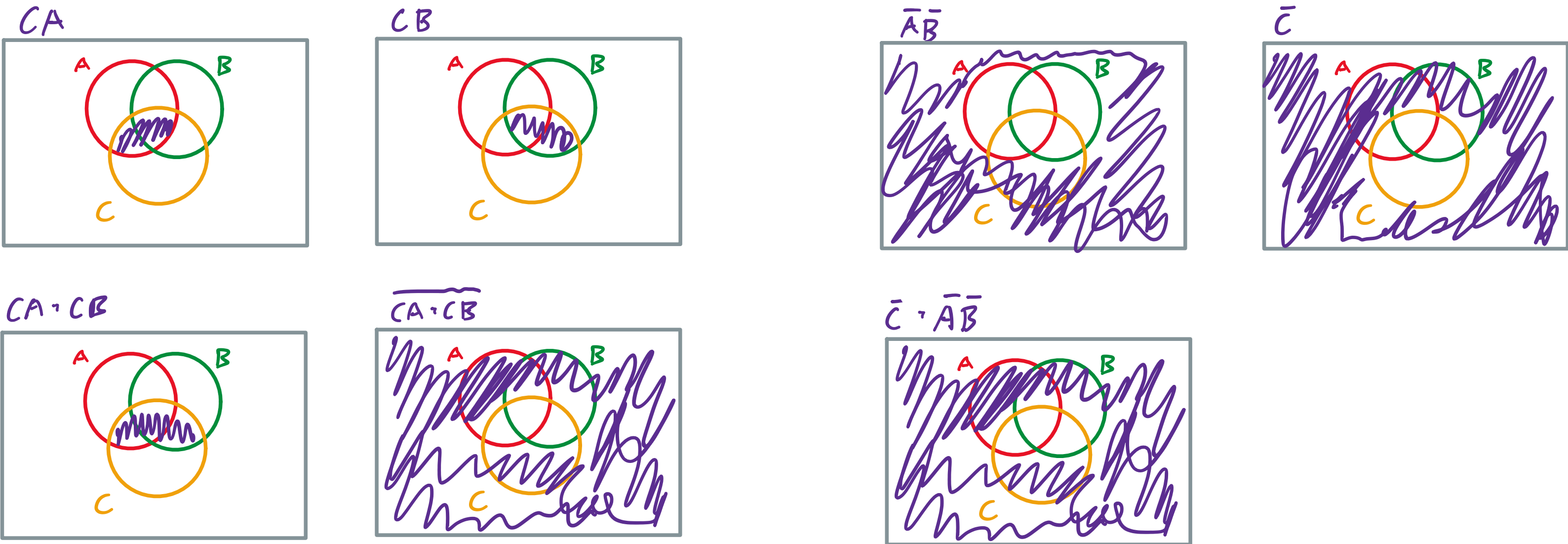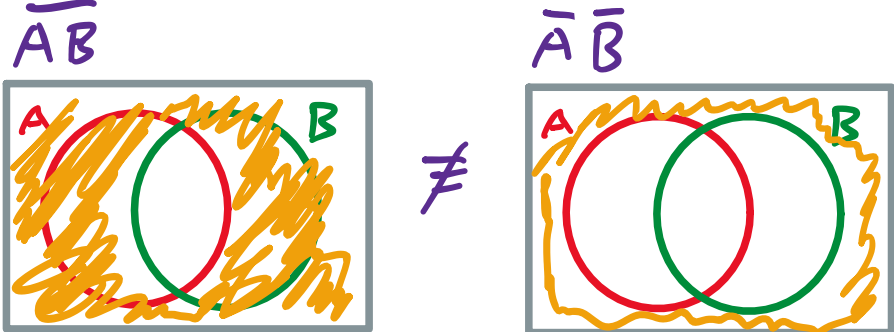
14) simplify $(\bar{A}) \uparrow ((AB) \uparrow (AB)) = A$

$\bar{A} \uparrow \overline{(A \uparrow B)} \Rightarrow \overline{(\bar{A}) \uparrow (\overline{A \uparrow B})} \Rightarrow ABA$
$\Rightarrow A$

$A = A$

16)

$=$	TT	TF	FT	FF	
$f_1(A,B) = AB$	T	F	F	F	$\leftarrow$
f_2 " $= A\bar{B}$	F	T	F	F	$\leftarrow$
f_3 " $= \bar{A}B$	F	F	T	F	$\leftarrow$
f_4 $\bar{A}\bar{B}$	F	F	F	T	$\leftarrow$

17) $A \Rightarrow B$