PHL245 Mistakes

1. T: Paula is tired; W: Paula studies hard.
Paula studies hard unless she's tired, in which case (that is, if she's tired) she doesn't.

$$(T \vee W) \wedge (T \rightarrow \sim W)$$

2. Q: Quincy will pass; U: Quincy studies hard; P: Paula will pass; W: Paula studies hard.
Unless she studies hard, Paula will study hard and pass just in case Quincy does the same.

$$(Q \wedge U \rightarrow W \wedge P) \vee W$$

3. V: Rachel studies hard; R: Rachel will pass; X: Sidney studies hard.
Unless Rachel, who either failed to study hard or succeeded in passing, does pass, Sidney will neither study hard nor fail to study hard.

$$(\sim X \wedge \sim\sim X) \vee (R \wedge (\sim V \vee R))$$

加了个从句直接用 and 连接.

4. U: Quincy studies hard; Q: Quincy will pass; V: Rachel studies hard.
R: Rachel will pass.
Quincy will either study hard or fail to pass, but not both; however, Rachel studies hard just in case it is not the case that she will pass if and only if it is the

4.1
P just in case Q
$Q \leftrightarrow P$
4.2
Don't be afraid. just do it!

case that she will pass.

$[([U \vee \sim Q) \wedge \sim(U \wedge \sim Q)) \wedge ((V \leftrightarrow \sim R) \leftrightarrow R)]$

5. Identify main connective:

$P \wedge \sim(Q \wedge R \rightarrow P \wedge S) \boxed{\wedge} R$

↖ 当并列时则最右侧是.

6. Sentences are consistent: 全对.

7. $\sim K \wedge P \rightarrow (Q \leftrightarrow (S \wedge P))$ is informal

~比∧优先.

8. $\sim(R \vee Q) \leftrightarrow (\sim R \wedge (M \wedge \sim Q))$ is NWF.

↖ 只能用P以后的字母

9. The garden not looking too busy is necessary for people to think that the garden looks nice, and the garden won't look too busy only if at most one of the cactuses, the succulents, and the trees are in it.

注意细节.

P: The garden looks too busy.
Q: People think that the garden looks nice.
R: The cactuses are in the garden.
S: The succulents are in the garden.
T: The trees are in the garden.

$[(\sim P \rightarrow Q) \wedge [\sim P \rightarrow ((R \wedge \sim S \wedge \sim T) \vee (\sim R \wedge S \wedge \sim T) \vee (\sim R \wedge \sim S \wedge T) \vee (\sim R \wedge \sim S \wedge \sim T))]$.

P necessary Q
= Q → P

10. The caterers not being late is necessary for the event to go smoothly and end on time.

$(S \wedge T) \rightarrow \sim P$.

P: The caterers are late.
T: The event ends on time.
S: The event goes smoothly.