

CS-2050, B1, TA: Unknown, Instructor: Sweat, Monica
HW1 ; Alexander Guo

- 2.) a. Not a proposition.
e. Proposition; False.
f. Not a proposition.
- 14.) a. $r \wedge \neg q$
d. $p \wedge \neg q \wedge r$
e. $(p \wedge q) \rightarrow r$
- 18.) b. True
c. False
d. True
- 22.) a. If you wash the boss's car, then you get promoted.
d. If Willy cheats, then he will get caught.
f. If you know the right people, then you will get elected.
- 28.) a. Original: If it snows today, I will ski tomorrow.

Converse: If I ski tomorrow, then it will snow today

Inverse: If it doesn't snow today, I will not ski tomorrow.

Contrapositive: If I don't ski tomorrow, then it won't snow today.

- 30.) d. $2^5 = 32$
- 36.) e.

p	q	r	$\neg r$	$(p \vee q)$	$(p \vee q) \wedge \neg r$
T	T	T	F	T	F
T	T	F	T	T	T
T	F	T	F	T	F
T	F	F	T	T	T
F	T	T	F	T	F
F	T	F	T	T	F
F	F	T	F	F	T
F	F	F	T	F	F