

Quiz 1

D Term, 2015

Show all work needed to reach your answers.

1. (8 points) Please identify each of the following as either a predicate (**P**), an implication (**I**), or a statement which is not an implication (**S**). For each implication, please circle the hypothesis and underline the conclusion.

- (a) _____ If $x + y$ is odd and $y + z$ is odd, then $x + z$ is odd.
 (b) _____ Some functions are not continuous.
 (c) _____ $A \implies B$
 (d) _____ The instructor picked all 16 games correctly on Thursday.
 (e) _____ When $x = 2$, one finds $y = 5$.

2. (10 points) Please complete the following truth table.

A	B	C	$A \vee C$	$\neg A$	$\neg(A \Rightarrow B)$	$(B \wedge (\neg C)) \vee A$	$(B \Rightarrow (A \vee C)) \Leftrightarrow ((C \vee (\sim B)) \Rightarrow A)$
F	T	T					
T	T	F					

3. (2 points) Please write $C \vee \neg B$ as an implication using an \Rightarrow symbol.