

1. Write a truth table for the following propositions.

$$(a \Rightarrow (b \Rightarrow c))$$

$$((a \wedge b) \vee (a \wedge c))$$

2. Which of the following are fully parenthesized propositions? (Write yes or no in the blank.)

a. _____ x

b. _____ $(x \vee B)$

c. _____ $a + b$

d. _____ $a \wedge b$

e. _____ $(a \wedge b(\wedge c))$

f. _____ $((a \vee b) \Rightarrow c)$

g. _____ $(a \vee b \vee c)$

h. _____ $(a = b) \vee c$

i. _____ $((\neg a) \wedge (\neg b))$

j. _____ $(a = (a \Rightarrow (a \vee (a \wedge (\neg a))))))$