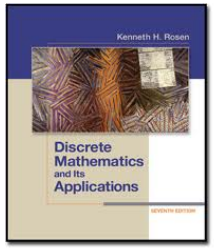
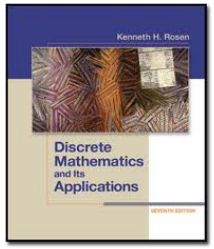


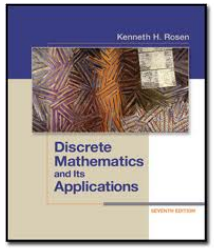
CS160

Peer Instruction #4: Propositional Logic



Which of the following statements is not a proposition?

A. Java variable names must be capitalized.
B. 10 + (x – 3) = 20
C. Math sets disallow duplicate members.
D. 30 – (3 * 6) = 12
E. Some propositions are both true and false.

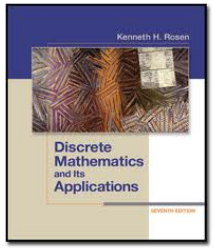


Fill in the missing entries in the truth table for **p** implies **q.**

p	**q**	**p → q**
true	true	true
true	false	?
false	true	?
false	false	true

A. true, true
B. true, false
C. false, true
D. false, false

Implication



What are the values of p and q for the following statements?

x = F

y = ¬(T ∧ x)

z = y ⊕ (T ∨ y)

p = ¬ x → ((y ∧ z) ∨ ¬ z)

q = (p ∧ y) ↔ (p ⊕ ¬ x)

A. true, true

B. true, false

C. false, true

D. false, false