Assignment 2 Solutions

1

a. $7 \leq p < 12$

b. $5 < x < 7$

c. $x < 4$

d. $-3 < y < 3$

e. $x = 0$

2

a. p is between 7 included and 12

b. x is between 5 and 7

c. x is less than 4

d. y is between -3 and 3

e. x equals to 0

3

Evaluating the statements from left to right. On the first false evaluation will stop and return, otherwise will have to check all of the members to verify that it is true.

4

Evaluating the statements from left to right. On the first false evaluation will show that the conjunction is false.

5

a. $\pi > 3$

b. $x \neq 0$

c. $x \geq 0$

d. $x \geq 0$

e. $x > 3 \vee x < -3$

6

a. π is greater than 3

b. x is different from 0

c. x is greater or equal to zero

d. x is greater or equal to zero

e. x is greater than 3 or less than -3

7

Evaluating the statements from left to right. On the first true evaluation will stop and return that the whole dijunction is true.

8

Evaluating the statements from left to right. On the first true evaluation will stop, otherwise will have to check all the statements to ensure that is false.

9

a. $\pi \leq 3.2$

b. $x \geq 0$

c. $x = 0$

d. $x \neq 1$

e. ϕ

10

a. π is less or equal than 3.2

b. x is greater than is zero

c. x is equal to zero

d. x is not equal to zero

e. double negation is the same number

11

a. $D \wedge Y$

b. $\neg Y \wedge T \wedge D$

c. $\neg(Y \wedge D) = \neg Y \vee \neg D$

d. $T \wedge \neg D \wedge \neg Y$

e. $\neg T \wedge Y \wedge D$

12 Just for fun

13

Not guilty does not mean the same. Not guilty means not proven to be guilty. A more acurate statement would be "Not proven guilty".

14

The framework works with true and false, but not with different levels of true and false. We can't have less true, medium true and super mega true. In order to use such language in the framework we can add "very" as part of the statement. $\neg verypleased$. Another option would be breakdown the very pleased into