1. Si a = 33, determinar si la siguiente operación es VERDADERA o FALSA

• NOT ((a > 10) AND (a < 20))

NOT ((33 > 10) AND (33 < 20))

NOT (V AND F)

NOT F

V

• NOT ((a> 10) OR NOT (a < 20))

NOT ((33 > 10) OR NOT (33 < 20))

NOT (V OR NOT F)

NOT V OR V

NOT V

F

2. Si a = 20 b = a c = 15 d = 10

Determinar si la siguiente operación es VERDADERA o FALSA
• ((a = b) OR (b > c)) OR (c < d)

(v OR v) OR (F)

V OR F

V

3. Siendo el valor de las variables: a = 10 b = 12 c = 13 d = 10

Encontrar el valor de verdad de cada una de las siguientes expresiones

• ((a > b) OR (a < c)) AND ((a = c) OR (a >= b))
(f OR v) AND (f OR f)

v AND f

f
• ((a >= b) OR (a < d)) AND ((a >= d) AND (c > d))
(f OR f) AND (v AND f)

f AND f

f
• NOT (a = c) AND (c > b)
NOT f AND v

NOT f

v

4. Encontrar el valor de verdad de la siguiente expresión

M = 8, N = 9, R = 5, S = 5, T = 4, V = 7

• NOT ((M > N AND R > S) OR (NOT (T < V AND S > M))
NOT (F AND F OR (NOT (T < V AND S > M))
NOT (F AND F OR (NOT (V AND F))

NOT (F AND F OR (NOT F))

NOT (F OR V)

V

5. Aplicando la jerarquía de los operadores, encontrar el valor de verdad de cada una de las siguientes expresiones.

• (3 * 2 ^ 2 – 4 / 2 * 1) > (3 * 2 ^ 2 * 1) AND (5 > 11 MOD 4)

(3 * 4 – 2) > (3 * 4) AND (5 > 3)

(12 – 2) > 12 AND

10 > 12 AND V

F AND V

F

• (3 >= 3 OR 5 <> 5) AND NOT (15 / 5 + 2 <> 5)

(V OR F) AND NOT (3 + 2 <> 5)

V AND NOT (5 <> 5)

V AND NOT F

V AND V
V

• NOT (NOT ((3 (- 3)) * 2 > (3 – (- 3) * 2) OR 1 ^ 3 * 2 > 6))
NOT (NOT ((- 9) * 2 > (3 + 6) OR 6 > 6)

NOT (NOT (- 18 > 9) OR F)

NOT (NOT F OR F)

NOT (NOT F)

NOT V

F

• (3 >= 4 AND 5 > 3 AND 3 > 3) OR NOT (4 <= 4 OR 5 > 4 OR 6 >= 7)

F AND V AND F OR NOT V OR V OR F

F AND F OR NOT V OR F

F OR NOT V

F OR F

F