

$$VL(P) = F$$

$$VL(Q) = V$$

$$VAL(P) = F$$

---


$$\underline{P \wedge Q \wedge R \wedge P}$$

$$\neg \quad \neg \quad \sim$$

$$e \quad \wedge \quad \hat{e}$$

$$or \quad \vee \quad ok$$



$$a) p \vee q$$

$$b) p \wedge q$$

$$c) p \rightarrow q$$

$$d) \neg p \wedge \neg q$$

$$e)$$

$P$	$\neg P$
$V$	$F$
$F$	$V$

$$\neg (P \vee Q \vee R \vee S \vee T)$$

$V \quad V \quad F$

$Q$	$\neg Q$
$V$	$F$
$F$	$V$

$P = \geq 6,0$        $Q = \geq 75\%$

P	Q	$P \wedge Q$
V	V	V
V	F	F
F	V	F
F	F	F

$$(P \wedge Q) \wedge R^F$$

$P = \text{ovos} \wedge$   
 $Q = \text{FARNMA}$

P	Q	$P \wedge Q$
V	V	V
V	F	F
F	V	F
F	F	F

$P = < 6.6$

$Q = < 75\%$

REPROVED

P	Q	P $\vee$ Q
V	V <sup>&lt; 75</sup>	V
V	F <sup>&gt; 75</sup>	V
F	V <sup>&lt; 75</sup>	V
F <sup>&gt; 6.6</sup>	F <sup>&gt; 75%</sup>	F

P	Q	P $\vee$ Q
V	V	V
V	F	V
F	V	V
F	F	F

R	P	Q	$R \vee P \vee Q$
V	V	V	V
V	V	F	V
V	F	V	V
V	F	F	V
F	V	V	V
F	V	F	V
F	F	V	V
F	F	F	F

$$[(P \vee Q) \vee R] \vee S$$

A red bracket with a question mark spans the expression  $[(P \vee Q) \vee R]$ . A red circle highlights the variable  $S$ . A red line connects the bracketed part to the  $S$  circle.

?	S	?	$S$
V	V	V	V
V	F	V	V
F	V	V	V
F	F	F	F

$P = \text{BEBER}$

$Q = \text{NÃO DIRIJA}$

P

Q

V

V

V

**F**

F

V

F

F

DIRIGI

CONDICIONAL

P

$\rightarrow$  Q

V

**F**

V

V

P	Q	$P \leftrightarrow Q$
V	V	V
V	F	F
F	V	F
F	F	V

~ EXISTE

EQUIVALE

$$P \text{ (} \leftarrow \text{)} \text{ (} \rightarrow \text{)} Q \Leftrightarrow (P \rightarrow Q) \wedge (P \leftarrow Q)$$

$$\Leftrightarrow (P \Rightarrow Q) \wedge (Q \Rightarrow P)$$



$$VL(P) = \textcircled{V}$$

$$a) VL(P \rightarrow Q) = V$$

FALSA

P	Q	$P \rightarrow Q$
V	V	V
V	F	F
<del>F</del>	<del>V</del>	<del>V</del>
<del>F</del>	<del>F</del>	<del>V</del>

$$VL(p) = V$$

FALSA

P	Q	$P \wedge Q$
V	V	V
V	F	F
F	V	F
F	F	F

$$VL(P) = V$$

FALSA

P	Q	$P \leftrightarrow Q$
V	V	V
V	F	F
F	V	F
F	F	V

$$V\{P\} = V$$

VERDADEIRO

P	Q	P V Q
V	V	V
V	F	V
F	V	V
F	F	F

P	Q	$P \rightarrow Q$
V	V	V

a) F	V	V
a) F	F	V

P	Q	$P \rightarrow Q$
V	V	V
<del>V</del>	<del>F</del>	<del>F</del>
F	V	V
F	F	V

d) FALSA

e) VERDADEIRA