**Expressões Booleanas**

**Expressão S0 inicial:**

(A+~B+C+D+~F)\*(A+~B+C+~D+F)\*(~A+B+C+~D+~F)\*(~A+B+~C+~D+~F)\*(~A+B+~C+D+F)

**Expressão S0 Simplificada:** **(A\*B+C\*~A+D\*F\*~A+D\*~B\*~F+F\*~B\*~D+~A\*~B+~B\*~C\*~D+~B\*~C\*~F+~C\*~D\*~F)**

**Expressão S1 inicial:**

(A+B+C+D+~F)\* (A+B+C+~D+~F)\* (A+B+~C+D+F)\* (A+B+~C+D+~F)\* (A+~B+C+~D+~F)\* (A+~B+~C+D+~F)\* (A+~B+~C+~D+F)\* (A+~B+~C+~D+~F)\* (~A+B+~C+D+~F)\* (~A+~B+C+D+F)\* (~A+~B+C+D+~F)\* (~A+~B+C+~D+F)

**Expressão S1 Simplificada:**

S1 = **(A\*B\*C)+(A\*D\*F)+(A\*~B\*~C)+(A\*~B\*~F)+(B\*~A\*~C\*~D)+(B\*~A\*~D\*~F)+(C\*D\*~B)+(~A\*~C\*~F)**

**Expressão S2 inicial:**

(A+B+C+D+~F)\* (A+B+C+~D+F)\* (A+B+C+~D+~F)\* (A+B+~C+D+F)\* (A+B+~C+D+~F)\* (A+B+~C+~D+F)\* (A+B+~C+~D+~F)\* (A+~B+C+D+F)\* (A+~B+C+D+~F)\* (A+~B+C+~D+F)\* (~A+B+~C+~D+~F)

**Expressão S2 Simplificada:**

S2 = **A\*(~C+~D+~F)+B\*(C+D\*F)+~B\*~C\*~D\*~F**

**Expressão S3 inicial:**

(A+B+C+D+~F)\* (A+B+C+~D+F)\* (A+B+~C+D+~F)\* (A+~B+C+D+F)\* (A+~B+C+~D+~F)\* (A+~B+~C+D+F)\* (A+~B+~C+~D+~F)\* (~A+B+C+~D+F)\* (~A+B+~C+D+~F)\* (~A+B+~C+~D+F)\* (~A+~B+C+~D+F)

**Expressão S3 Simplificada**

S3=**(A\*B\*C+A\*F\*~C+A\*~C\*~D+A\*~D\*~F+B\*D\*~A\*~F+B\*F\*~D+C\*~A\*~B\*~F+D\*F\*~B+~B\*~D\*~F)**

**Expressão inicial S4:**

(A+B+C+D+~F)\* (A+B+C+~D+F)\* (A+B+C+~D+~F)\* (A+B+~C+~D+F)\* (A+~B+C+D+~F)\* (A+~B+C+~D+~F)\* (A+~B+~C+D+F)\* (A+~B+~C+D+~F)\* (~A+B+C+D+F)\* (~A+B+C+~D+~F)\* (~A+B+~C+D+~F)\* (~A+B+~C+~D+F)\* (~A+~B+C+D+F)

**Expressão S4 Simplificada:**

S4 = **(A\*B\*C)+(A\*B\*D)+(A\*D\*~C\*~F)+(A\*F\*~C\*~D)+(B\*D\*~F)+(C\*D\*F)+(C\*~A\*~B\*~D)+(C\*~B\*~D\*~F)+(~A\*~B\*~D\*~F)+(~A\*~C\*~D\*~F)**

**Expressão S5 inicial:**

(A\*~B\*C\*~D\*F)+ (A\*~B\*C\*D\*~F)+ (A\*~B\*C\*D\*F)+ (A\*B\*~C\*~D\*~F)+ (A\*B\*~C\*~D\*F)+ (A\*B\*~C\*D\*~F)

**Expressão S5 Simplificada**

S5 =  **(B + C) \* (B + D + F) \* (C + ~D + ~F) \* (~B + ~C) \* A**