

Name \_\_\_\_\_

Boolean Algebra Homework # 2

Laws of Absorption.  
Simplify the following expressions:

1.  $\overline{B}(E+B)=$

2.  $AB(C+\overline{AB})=$

3.  $GF+ED\overline{D}+\overline{\overline{GF}}=$

4.  $P(\overline{\overline{K}})+L(N+M)+JK)=$

5.  $B+C+BD\overline{B}D=$

6.  $(XX+\overline{Y}Y)Z=$

7.  $(A+\overline{B}+C+\overline{A})(\overline{C}+\overline{A})=$

8.  $AB\overline{C}D+\overline{C}DBA+A\overline{C}B=$

9.  $(A+B+\overline{C})(\overline{A}+B+\overline{C})=$

10.  $\overline{A}B\overline{C}+\overline{A}B+AB\overline{C}+AB=$

11.  $AB+ABD\overline{E}+ABC+A\overline{B}C=$

12.  $\overline{A}B+ABD\overline{E}+\overline{A}B(C+A\overline{B}C)=$

13.  $A+\overline{A}BCD\overline{E}+\overline{A}BC+A\overline{B}C=$

14.  $(A+B)CD+(A+B)CDE+(\overline{A+B})CDEF=$

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15.  $(BE + C + F)C =$

16.  $ABC\overline{(C + AB)} =$

17.  $(B + C)\overline{(C + B)} =$

18.  $(XY + Z)\overline{WT + Z + XY} =$

19.  $BC(A + \overline{C} + B) =$

20.  $(AK + B\overline{W}) + \overline{(AK + B\overline{W})} =$

21.  $(AK + B\overline{W}) + \overline{(AK + B\overline{W})} =$

22.  $JL(LMN + \overline{J} \overline{K} \overline{P} \overline{Q})(K + P) =$

23.  $\overline{(AK + B\overline{W})} \overline{(AK + B\overline{W})} =$

24.  $R(S + \overline{S})ST =$

25.  $R(S + \overline{S}) + RST + \overline{RST} =$

26.  $K + J\overline{K} =$

27.  $TY + \overline{TY}(H + \overline{UV}) + UV =$

28.  $UV(Q + \overline{Q}ST)\overline{(UV + UV\overline{S}\overline{T})} =$

29.  $R(S + \overline{S})\overline{(RR + SS)} =$

30.  $\overline{X\overline{Y}} + WXY + \overline{XYZ} + \overline{U} \overline{X\overline{Y}} + YZ =$