Will May MY HW 4.1 1.) a.) True 3. ) a. ) True 6. ) a. ) False 6. SPalse b.) False b. ) True C. True C.) True C. True d.) True d.) False d. Palse 4.2 1.) a. True 2. ) a. > P(5aZ)= 53, 5a3 { 6.5 True b.) P51,2}=548, 811, 828, 81,082 C.> false d.> False 1.) a.7 <-3,0,1,4,17,-10,-5,62 3.5 a.5 1 1 3,016 0 1053 6.75 1 N3 N 16 V1355 6.) 5 4, 15 c.) Infinite C.) SXXE B; for all I such that -12x21/13 d.> 5-5, 1,-3,0, 1,4,173 d.) {x:x & Bi for some i Such that - Wilxellig A- (B-c) 4.4 Day an (A-B)-C U.) a.) False b.) True C. True d.) False 2.)a.) O(Anc)u(Anc) Given 4.5 1.) a. > Domination laws (3) (AUA) ( Distributive laws G) C Complement G) C Identity law b.) Absorption laws C.) De Morgan's laws

d.) Double Complement law

Identity Law

D.S b.S D (BUA) (BUA) Given (BOB) UA Distributive in Complement laws Distributive laws 3 QUA Identity Laws C. OANB = BUA Given @ CUA D'Magan's caws 3 A UB Communitare Laws do An (AUB) = An B biven (ANA) U(ANB) Distributive Laws

(ANA) U(ANB) Complement Law

ANB

Identity law

3.) 4.6 1.) a.) (tall, foam, whole) 3) a.) False b.) (tall, foam, whole)

5.) a.) False
b.) (foam, grande, non-fat)

6.) True
c.) True c.> (fram, no-fram, non-fat, whole) d.> true 4.5 a.5 4 (+-), (++)(++)(-) b.> 4(000), (001), (011), (111), (110), (100), (101), (010) > 8.) a. DA x (BUC) Given 2(XEA) N(YE(BUC)) Cartesian Product. 3(KEA) M((YEB) V (YEC)) Union the much (U(LXEA) N(YEB)) V(CXEA) N(YEC)) distributive law 6 ((x,4) EAKB) V ((K,4) EAKC) Cartesian product ( ((x,y) E (AXB) U (AXC) Union b.) OAX (Bnc)= (AXB) n (AXC) biven (D(KENDIN (YE (BAC)) cartesian product 3 (XEA) M((YEB) M(YEC)) Union the contrar ) (xEA) 1(YEB) 1 (YEC) Associative law (XEA) N(YEB) N(XEA) N(YEC) Dombutive laws (b) ((x,y) E (AxB)) N ((x,y) E (AxC)) Cartesian product O (CX,4) E ((AXB) ) (AXC) Union

1.) a.) Does not form a partition of D Since DEA and DEB ANBYD as DEANB b.) Does not form a partition of D BUC 70 Since 180 but 18 BUC C.) Does form a partition 2.) a.) (0,1)3 = (0,1) x (0,1) x (0,1) BAC = & and BUC = E = 5 (0,0), (0,1), (1,0), (1,1) 3 × (0,1) = 20,0,0),(0,0,1),(0,1,0),(0,1,1),(1,0,0) (1,91),(1,1,0),(1,1,1)& A=50,0,0} B= 2(1,1,1)2 C= 4(0,0,0), (0,0,1), (0,1,0), (0,1,1)4 D=5(0,1,0),(0,1,1)5 E= 4(1,0,0),(1,0,1),(1,1,0),(1,1,1){ F= 5 (0,0,0), (0,0,1)4 1 DUE UF = (0,1)3 DUE = EUE = DUE = Q 0 ±0, E ±0, F +10. (2) CUE = (0,13 CME = Ø CID, EID