

Huntington Theorems and Postulates for algebra  $B$

Idempotent(+)  $a + a = a$   
 Idempotent( $\cdot$ )  $a \cdot a = a$

Commutative(+)  $a + b = b + a$   
 Commutative( $\cdot$ )  $a \cdot b = b \cdot a$

Associative(+)  $(a + b) + c = a + (b + c)$   
 Associative( $\cdot$ )  $(a \cdot b) \cdot c = a \cdot (b \cdot c)$

Absorptive(+)  $a + (a \cdot b) = a$   
 Absorptive( $\cdot$ )  $a \cdot (a + b) = a$

Distributive(+)  $a + (b \cdot c) = (a + b) \cdot (a + c)$   
 Distributive( $\cdot$ )  $a \cdot (b + c) = a \cdot b + a \cdot c$

Complement(+)  $a + a' = 1$   
 Complement( $\cdot$ )  $a \cdot a' = 0$

Identity(+)  $a + 0 = a$   
 Identity( $\cdot$ )  $a \cdot 1 = a$

Involution  $(a')' = a$

Consensus(+)  $a \cdot b + a' \cdot c + b \cdot c = a \cdot b + a' \cdot c$   
 Consensus( $\cdot$ )  $(a + b) \cdot (a' + c) \cdot (b + c) = (a + b) \cdot (a' + c)$

DeMorgans(+)  $(a + b)' = a' \cdot b'$   
 DeMorgans( $\cdot$ )  $(a \cdot b)' = a' + b'$