AKSIOME BULOVE ALGEBRE $\mathcal{B} = (B, +, \cdot, ', 0, 1)$:

BA1: *komutativnost*

$$a + b = b + a, \quad a \cdot b = b \cdot a;$$

BA2: *distributivnost*

$$a \cdot (b + c) = a \cdot b + a \cdot c, \quad a + (b \cdot c) = (a + b) \cdot (a + c);$$

BA3: *neutralni element*

$$a + 0 = a, \quad a \cdot 1 = a;$$

BA4: *inverzni element (komplement)*

$$a + a' = 1, \quad a \cdot a' = 0.$$

OSNOVNE TEOREME BULOVE ALGEBRE $\mathcal{B} = (B, +, \cdot, ', 0, 1)$:

BT1: *zakon idempotentnosti*

$$a + a = a, \quad a \cdot a = a;$$

BT2: *ograničenost*

$$a + 1 = 1, \quad a \cdot 0 = 0;$$

BT3: *apsorbcija*

$$a + a \cdot b = a, \quad a \cdot (a + b) = a;$$

BT4:

$$a + a' \cdot b = a + b, \quad a \cdot (a' + b) = a \cdot b;$$

BT5: *asocijativnost*

$$(a + b) + c = a + (b + c), \quad (a \cdot b) \cdot c = a \cdot (b \cdot c);$$

BT6: *jedinstvenost komplementa*

$$(a + x = 1 \ \wedge \ a \cdot x = 0) \Longrightarrow x = a';$$

BT7: *involucija*

$$(a')' = a;$$

BT8:

$$0' = 1, \quad 1' = 0;$$

BT9: *De Morganovi zakoni*

$$(a + b)' = a' \cdot b', \quad (a \cdot b)' = a' + b'.$$