

1. POJEDNOSTAVLJENJE LOGIČKIH OPERACIJA

$$a) A \cdot 1 + \bar{A} \cdot 0 = A + 0 = A //$$

$$b) \bar{A} \cdot 1 + \bar{A} = \bar{A} + \bar{A} = \bar{A} //$$

$$c) A \cdot A + \bar{A} \cdot 1 = A + \bar{A} = 1 //$$

$$d) A + \bar{A} + B = 1 + B = 1 //$$

$$e) A + B \cdot C + B \cdot \bar{C} + \bar{A} = A + \bar{A} + B \cdot C + B \cdot \bar{C} = 1 + B(C + \bar{C}) \\ = 1 + B \cdot 1 = 1 + B = 1 //$$

$$f) \overline{A + \bar{A}} = \bar{A} \cdot \overline{\bar{A}} = \bar{A} \cdot A = 0$$

2. POJEDNOSTAVLJENJE LOGIČKIH OPERACIJA - DISTRIBUTIVNOST

$$a) A \cdot (\bar{A} + B) = A \cdot \bar{A} + A \cdot B = 0 + A \cdot B = A \cdot B //$$

$$b) A \cdot (A + B) = A \cdot A + A \cdot B = A + A \cdot B = A(1 + B) = A \cdot 1 = A //$$

$$c) A + (\bar{A} \cdot B) = \underbrace{(A + \bar{A})} \cdot (A + B) = 1 \cdot (A + B) = A + B //$$

RAZPIS

JKR

$$(A + \bar{A}) \cdot (A + B) = A \cdot A + A \cdot B + \bar{A} \cdot A + \bar{A} \cdot B = A + A \cdot B + 0 + \bar{A} \cdot B$$

$$= (A + A \cdot B) + \bar{A} \cdot B = A(1 + B) + \bar{A} \cdot B = A \cdot 1 + A \cdot B = A + A \cdot B //$$