1. **Pojednostavni logičke operacije (ovakve zadatke imate u bilježnici):**
   a. $A \cdot 1 + \overline{A} \cdot 0 =$
   b. $\overline{A} \cdot 1 + \overline{A}$
   c. $A \cdot A + \overline{A} \cdot 1 =$
   d. $A + \overline{A} + B =$
   e. $A + B \cdot C + B \cdot \overline{C} + \overline{A} =$
   f. $\overline{A + \overline{A}} =$

2. **Pojednostavni logičke operacije – distributivnost (ovakve zadatke imate u bilježnici)**
   a. $A \cdot \left(\overline{A} + B \right) =$
   b. $A \cdot \left(A + B \right) =$
   c. $A + \left(\overline{A} \cdot B \right) =$
   d. $B + A \cdot \overline{B} =$
   e. $A \cdot B + A =$
   f. $A \cdot B \cdot C + A \cdot B =$
   g. $A \cdot \overline{B} + B \cdot \left(A + \overline{B} \right) =$
   h. $A \cdot B + A \cdot \overline{B} + A \cdot C + C =$

3. **Pojednostavni logičke operacije:**
   a. $\overline{\overline{A} \cdot \left(A + B \right)} =$
   b. $\overline{\overline{A \cdot B} + A} =$
   c. $\overline{\overline{A + B} \cdot A} =$
   d. $\overline{B \cdot \left(A + \overline{B} \right)} =$
   e. $\overline{\overline{A} \cdot \left(A \cdot B \right)} =$
   f. $\left(\overline{\overline{A} + C} \right) \cdot \left(\overline{B + \overline{C}} \right) =$
   g. $A \cdot \left(A \cdot \overline{B} + \overline{A} \cdot B + \overline{B} \cdot C \right) =$
   h. $\overline{A + \left(B \cdot C \right)} \cdot C =$
   i. $A \cdot \left(\overline{A \cdot \overline{B} + \overline{A} \cdot B} \right) =$
   j. $\left(\overline{A + B} \right) \cdot \left(A + \overline{B} \right) \cdot \left(\overline{\overline{A} + B} \right) =$

Rješenja:

1. **Pojednostavni logičke operacije (ovakve zadatke imate u bilježnici):**

   a. $A \cdot 1 + \overline{A} \cdot 0 = A + 0 = A$

   b. $\overline{A} \cdot 1 + \overline{A} = \overline{A} + \overline{A} = \overline{A}$

   c. $A \cdot A + \overline{A} \cdot 1 = A + \overline{A} = 1$

   d. $A + \overline{A} + B = 1 + B = 1$

   e. $A + B \cdot C + B \cdot \overline{C} + \overline{A} = A + \overline{A} + B \cdot C + B \cdot \overline{C} = 1 + B \cdot C + B \cdot \overline{C} = 1$

   f. $\overline{A + \overline{A}} = \overline{1} = 0$

2. **Pojednostavni logičke operacije – distributivnost (ovakve zadatke imate u bilježnici)**

   a. $A \cdot \left(\overline{A} + B \right) = A \cdot \overline{A} + A \cdot B = 0 + A \cdot B = A \cdot B$

   b. $A \cdot \left(A + B \right) = A \cdot A + A \cdot B = A + A \cdot B = A \cdot (1 + B) = A$

   c. $A + \left(\overline{A} \cdot B \right) = (A + \overline{A}) \cdot (A + B) = 1 \cdot (A + B) = A + B$

   d. $B + A \cdot \overline{B} = (B + A) \cdot (B + \overline{B}) = (B + A) \cdot 1 = B + A$

   e. $A \cdot B + A = A \cdot \left(B + 1 \right) = A \cdot 1 = A$

   f. $A \cdot B \cdot C + A \cdot B = A \cdot B \cdot (C + 1) = A \cdot B$

   i. $A \cdot \overline{B} + B \cdot \left(A + \overline{B} \right) = A \cdot \overline{B} + B \cdot A + B \cdot \overline{B} = A \cdot \overline{B} + B \cdot A + 0 = A \cdot \overline{B} + B \cdot A = A \cdot (B + \overline{B}) = A \cdot 1 = A$

   j. $A \cdot B + A \cdot \overline{B} + A \cdot C + C = A \cdot (B + \overline{B} + C) + C = A \cdot (1 + C) + C = A \cdot 1 + C = A + C$

3. **Pojednostavni logičke operacije: (složeniji zadatci)**

   a. $\overline{\overline{A} \cdot \left(A + B \right)} = \overline{\overline{A} \cdot A + \overline{A} \cdot B} = \overline{0 + \overline{A} \cdot B} = \overline{\overline{A} \cdot B} = \overline{\overline{A}} + \overline{B} = A + \overline{B}$

   b. $\overline{\overline{A \cdot \overline{B}} + A} = \overline{\overline{A \cdot \overline{B}}} \cdot \overline{A} = A \cdot \overline{B} \cdot \overline{A} = A \cdot \overline{A} \cdot \overline{B} = 0 \cdot B = 0$

   c. $\overline{\overline{A + B} \cdot A} = \overline{\overline{A + B}} + \overline{A} = A + B + \overline{A} = A + \overline{A} + B = 1 + B = 1$

   d. $\overline{B \cdot \left(A + \overline{B} \right)} = \overline{B \cdot A + B \cdot \overline{B}} = \overline{B \cdot A} = \overline{B} + \overline{A}$

   e. $\overline{\overline{A} \cdot \left(A \cdot B \right)} = \overline{0} = 1$

   f. $\left(\overline{\overline{A} + C} \right) \cdot \left(\overline{B + \overline{C}} \right) = \left(A \cdot \overline{C} \right) \cdot \left(\overline{B} \cdot \overline{\overline{C}} \right) = \left(A \cdot \overline{C} \right) \cdot \left(\overline{B} \cdot C \right) = A \cdot \overline{B} \cdot \overline{C} \cdot \overline{\overline{C}} = A \cdot \overline{B} \cdot 0 = 0$

   g. $A \cdot \left(A \cdot \overline{B} + \overline{A} \cdot B + \overline{B} \cdot C \right) = A \cdot A \cdot \overline{B} + A \cdot \overline{A} \cdot B + A \cdot \overline{B} \cdot C =$
   $A \cdot \overline{B} + 0 + A \cdot \overline{B} \cdot C = A \cdot \overline{B} + A \cdot \overline{B} \cdot C = A \cdot \overline{B} \cdot (1 + C) = A \cdot \overline{B}$

   k. $\overline{A + (B \cdot C)} \cdot C = \overline{A} \cdot \overline{B \cdot C} \cdot C = \overline{A} \cdot \left(\overline{B} + \overline{C} \right) \cdot C = \overline{A} \cdot C \cdot \left(\overline{B} + \overline{C} \right) =$
   $\overline{A} \cdot C \cdot \overline{B} + \overline{A} \cdot C \cdot \overline{C} = \overline{A} \cdot C \cdot \overline{B} + 0 = \overline{A} \cdot C \cdot \overline{B}$

l. $$A\cdot\left(\overline{A\cdot\overline{B}+\overline{A}\cdot B}\right)=A\cdot\left(\overline{A\cdot\overline{B}}\cdot\overline{\overline{A}\cdot B}\right)=A\cdot\left(\overline{A}+\overline{\overline{B}}\right)\cdot\left(\overline{\overline{A}}+\overline{B}\right)=\left(A\cdot\overline{A}+A\cdot B\right)\cdot\left(A+\overline{B}\right)=$$
$$A\cdot B\cdot\left(A+\overline{B}\right)=A\cdot B\cdot A+A\cdot B\cdot\overline{B}=A\cdot B+0=A\cdot B$$

m. $$\left(\overline{A+B}\right)\cdot\left(A+\overline{B}\right)\cdot\left(\overline{\overline{A}+B}\right)=\overline{A}\cdot\overline{B}\cdot\left(A+\overline{B}\right)\cdot\overline{\overline{A}}\cdot\overline{B}=\overline{A}\cdot\overline{B}\cdot\overline{\overline{A}}\cdot\overline{B}\cdot\left(A+\overline{B}\right)=$$
$$\overline{A}\cdot A\cdot\overline{B}\cdot\overline{B}\cdot\left(A+\overline{B}\right)=0\cdot\left(A+\overline{B}\right)=0$$