**Esercizi.** Calcola la F.N.D. (forma normale disgiuntiva), la somma di tutti gli implicanti primi e una f.m. (forma minimale) per i seguenti polinomi booleani :

1. $P_1(x, y, z) = ((x \wedge y)' \wedge (y \vee x'))'$

2. $P_2(x, y, z) = ((x \wedge y)' \wedge z)' \wedge ((x \vee z) \wedge (y' \vee z'))'$

3. $P_3(x, y, z) = ((y' \wedge x)' \wedge (y' \vee z' \vee x))' \vee ((z' \vee x \vee z') \wedge (x \vee y))'$

4. $P_4(x, y, z) = ((y \wedge 1 \wedge z' \wedge y \wedge x) \vee (y \wedge x'))' \wedge$
   $\wedge [(y \wedge (z \vee y' \vee 0 \vee x)) \wedge ((z' \vee x)' \vee (y \wedge 1 \wedge z \wedge x' \wedge y))']$

5. $P_5(x, y, z) = ((z \vee y) \wedge (x' \vee z \vee x'))' \vee ((y' \wedge z)' \wedge (y' \vee x' \vee z))'$

6. $P_6(x, y, z) = ((z' \wedge x' \wedge y)' \wedge (y' \vee x \vee z'))' \vee ((y' \vee z \vee y') \wedge (x' \vee z \vee x'))'$

7. $P_7(x, y, z) = ((x' \vee z)' \wedge (y'' \vee z)) \vee ((y \vee z' \vee x') \wedge (z \vee x' \vee z))'$