Zadatak 23. Odredi ona rješenja jednadžbe $z^7 + \overline{z} = 0$, $z \in \mathbf{C}$ za koja je $\operatorname{Im}(z) > 0$.

Rješenje. $z^7+\overline{z} = 0$, $z \in \mathbf{C}$, $\operatorname{Im}(z) > 0$; $z^7 = -\overline{z}$, $|z^7| = |z|^7 = |-\overline{z}| = |z| \implies z = 0$ ili $|z| = 1$; $z^8 = -|z|^2 = -1 \implies z = \sqrt[8]{-1}$; 1.212.10 $\implies z_k = \cos\dfrac{2k+1}{8}\pi + i\sin\dfrac{2k+1}{8}\pi$, $k \in \mathbf{Z}_8$; $\operatorname{Im} z > 0 \implies \sin\dfrac{2k+1}{8}\pi > 0$, $k \in \mathbf{Z}_8 \implies \dfrac{2k+1}{8}\pi < \pi$, $k \in \mathbf{Z}_8 \implies \dfrac{2k+1}{8} < 1$, $k \in \mathbf{Z}_8 \implies z_k = \cos\dfrac{2k+1}{8}\pi + i\sin\dfrac{2k+1}{8}\pi$, $k \in \mathbf{Z}_k$.