Exercises solved at the recitation on 6. 11. 2007

- Find a family of $\binom{k+s-2}{s}$ s-element sets without a k-sunflower.
- Find a family of $(k-1)^s$ s-element sets without a k-sunflower.
- Let $\mathcal{F}$ be a family of subsets of $[n]$ such that each two sets in $\mathcal{F}$ intersect. Show that $|\mathcal{F}| \leq 2^{n-1}$. Show that this estimate is best possible.
- Let $k \geq 2$. Show that a graph $G = (V, E)$ with $|E| \geq (k-1)|V|$ contains every tree with k edges as a subgraph.