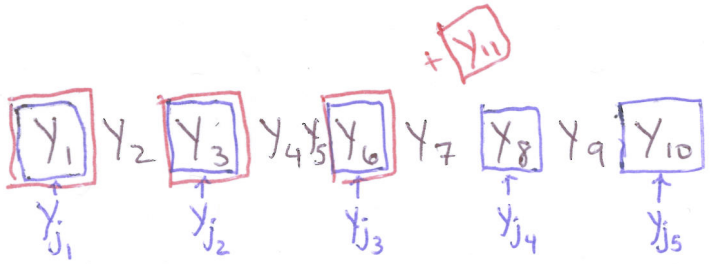

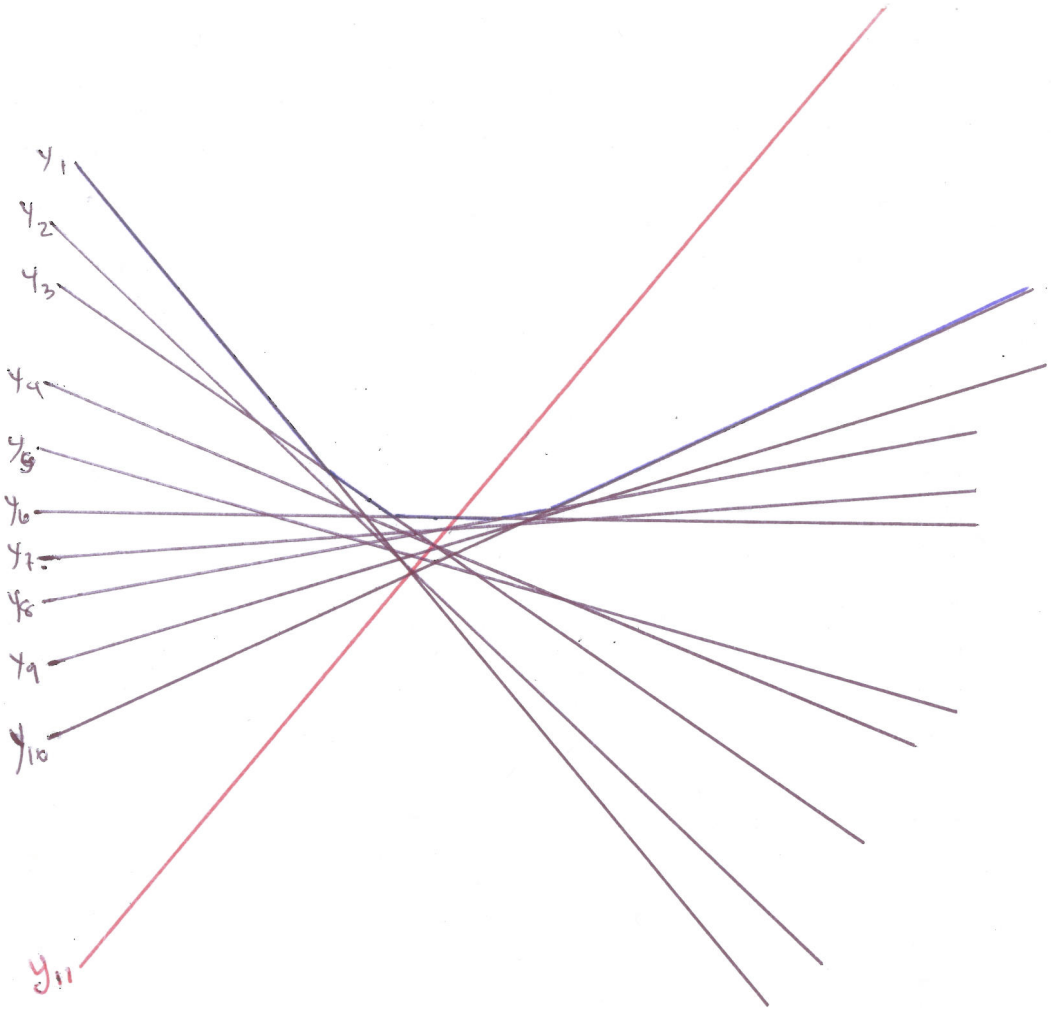

$\{y_1, y_3, y_6, y_8, y_{10}\}$ is the visible subset of $\{y_1, \dots, y_{10}\}$.

In Claim 2, this visible subset is called $\{y_{j_1}, y_{j_2}, y_{j_3}, \dots, y_{j_t}\}$.

In this example $t=5$ and $y_{j_1} = y_1$, $y_{j_2} = y_3$, ... as shown above.

If we add a line to this set, y_{10} (y_i in Claim 2) whose slope is bigger than y_{10}'s. then the visible subset of $\{y_1, y_2, \dots, y_{10}, y_{11}\}$ will contain a subset of the visible subset of $\{y_1, y_2, \dots, y_{10}\}$ and y_{11}. That is, adding a line can't make something visible that was previously not visible.

Notice that the visible subset of $\{y_1, y_2, \dots, y_{11}\}$ is $\{y_1, y_3, y_6, y_{11}\}$. (in red above)

this is a prefix of $\{y_1, y_3, y_6, y_8, y_{10}\}$.

You must show that this "prefix" idea is true in general.
In this example $j_t = 10$ and $j_k = 6$. ($y_{j_t} = y_{10}$ and $y_{j_k} = y_6$).