When we speak of the dimension of a linear system, we will refer to the dimension of the projective space parametrizing it; thus when we write $\dim|D|$ for the dimension of the complete linear system associated to a divisor D, we have

$$\dim|D| = h^0(M, \mathcal{O}(D)) - 1.$$

A linear system of dimension 1 is called a pencil, of dimension 2 a net, and of dimension 3 a web.

We will mention here two special properties of linear systems. The first is elementary: if $E = \{D_\lambda\}_{\lambda\in\mathbb{P}^n}$ is a linear system, then for any $\lambda_0, \dots \lambda_n$ linearly independent in $\mathbb{P}^n$,

$$D_{\lambda_0} \cap \cdots \cap D_{\lambda_n} = \bigcap_{\lambda\in\mathbb{P}^n} D_\lambda .$$

Pf. $D_{\lambda_0} \cap \cdots \cap D_{\lambda_n} \supset \bigcap_{\lambda\in\mathbb{P}^n} D_\lambda$ obviously.

Let $H^0(M, \mathcal{O}(L))$ = $(n+1)$-dimensional complex space.
Each λ_i corresponds to a global section $S_i \in H^0(M, \mathcal{O}(L))$.
Let $D_i = (S_i)$. $\Rightarrow$ Since S_i is a global holomorphic function on M, D_i is effective.

Given any global holomorphic section $S \in H^0(M, \mathcal{O}(L))$,
S may be expressed as a linear combination of $S_0, S_1 \cdots S_n$.

$\Rightarrow$ $S = 0$ on $\bigcap\{S_i = 0\}$ $\Rightarrow$ $(S) \supset \bigcap_{i=1}^{n}(S_i)$.

$\Rightarrow$ $D_S \supset \bigcap D_i = \bigcap_{i=1}^{n} D_{\lambda_i}$ $\Rightarrow$ $\bigcap D_\lambda \supset \bigcap D_{\lambda_i} = D_{\lambda_0} \cap \cdots \cap D_{\lambda_n}$ //