

# Dictionary

## Geometry

- $X$  g.-a. variety
- closed subsets in  $X$
- $D(f)$ ,  $f \in k[X]$
- $X \times Y$
- irreducible  $X$
- points in  $X$
- irred closed subsets in  $X$
- irreducible components of  $X$
- regular maps
- birational equiv. class of  $X$
- dominant rat. map  $X \rightarrow Y$
- closed irred. containing  $Z \subset X$
- components of  $X$  containing  $Z$

## Algebra

$k[X]$

ideals in  $k[X]$

$k[X]_f$

$k[X] \otimes_k k[Y]$

$k[X]$  domain

maximal ideals in  $k[X]$

prime ideals in  $k[X]$

minimal prime ideals in  $k[X]$

$k$ -algebra homs

$k(X)$

field homo  $k(Y) \rightarrow k(X)$

prime ideals in  $\mathcal{O}_{X,Z}$

minimal prime ideals in  $\mathcal{O}_X$