

$$\begin{array}{ccccc}
 A(A^n) & \longrightarrow & A(Y) & \longrightarrow & A(X) \\
 \parallel & & \parallel & & \parallel \\
 k[x,y] & \longrightarrow & k[x,y]/\langle y-x^2 \rangle & \longrightarrow & k[x,y]/\langle x-1,y-1 \rangle
 \end{array}$$