

$$\begin{array}{ccc} A & \xrightarrow{\varphi} & B \\ & \searrow & \\ & & C \end{array}$$

$$\begin{array}{ccc} A & \xrightarrow{\phi} & B \\ \downarrow & & \downarrow \psi \\ C & \xrightarrow{\eta} & D \end{array}$$

$$A \xrightarrow[\psi]{\phi \eta} B$$

$$\begin{array}{ccccc} T & & \xrightarrow{x} & & X \\ & \searrow (x,y) & & \searrow & \\ & & X \times_Z Y & \xrightarrow{p} & X \\ & & \downarrow q & & \downarrow f \\ & & Y & \xrightarrow{g} & Z \end{array}$$

$$\begin{array}{ccccc} & & \pi_1(U_1) & \xrightarrow{j_1} & \\ i_1 \nearrow & & \searrow & & \\ \pi_1(U_1 \cap U_2) & & \pi_1(U_1) *_{\pi_1(U_1 \cap U_2)} \pi_1(U_2) & \xrightarrow{\cong} & \pi_1(X) \\ i_2 \searrow & & \nearrow & & \\ & & \pi_1(U_2) & \xrightarrow{j_2} & \end{array}$$