

$$\frac{X}{1\times X}\rightarrow$$

$$\frac{\varphi_\eta}{P}$$

$$strict$$

$$q\bar{e}-$$

$$bra$$

$$\frac{P}{\phi}$$

$$(X,\alpha_n,\phi,\phi_\eta)$$

$$(Y,\beta_n,\psi,\psi_\eta)$$

$$\frac{P}{pseud-}$$

$$\frac{do}{mor-}$$

$$phism$$

$$\frac{P}{f\colon X\rightarrow}$$

$$Y$$

$$\frac{n}{N}\in$$

$$\frac{f^n}{N}$$

$$??$$

$$(0,0)*+P_n\times X^n="00";(20,0)*+X="10";(0,-15)*+P_n\times Y^n="01";(20,-15)*+Y="11";^{>}>>>\tilde{\alpha}_n"00";"10";$$

$$(0,0)*+P_n\times\prod_i(P_{k_i}\times X^{k_i})="00";(50,0)*+P_n\times\prod_i(P_{k_i}\times Y^{k_i})="10";(0,-25)*+P_{\Sigma k_i}\times X^{\Sigma k_i}="01";(50,-25)*+P_{\Sigma k_i}\times Y^{\Sigma k_i}=$$

$$(0,0)*+X="00";(20,0)*+Y="10";(0,-15)*+1\times X="01";(20,-15)*+1\times Y="11";(0,-30)*+P_1\times X="02";(20,-30)*+P_1\times Y="02";(0,-15)*+1\times Y="11";(0,-30)*+P_1\times X="02";(20,-30)*+P_1\times Y="02";$$

$$(X,\alpha_n,\phi,\phi_\eta)$$

$$(Y,\beta_n,\psi,\psi_\eta)$$

$$\frac{P}{strict}$$

$$mor-$$

$$phism$$

$$\frac{P}{f^n}$$

$$\frac{P}{Cat}$$

$$\frac{P}{cat-}$$

$$gory$$

$$\frac{P}{f^n}$$

$$?$$

$$?$$

$$??$$

$$\frac{f_n}{f_n}$$

$$\frac{f_n}{f_n}$$

$$\frac{f_n}{f_n}$$

$$\frac{f_n}{f_n}$$

$$\frac{f_n}{f_n}$$

$$\frac{f_n}{f_n}$$

$$(\sigma,g,x_1,\ldots,x_n)\in$$

$$P(n)\times$$

$$\Lambda(n)\times$$

$$\frac{X^n}{(f_n)_{(\sigma\cdot g,x_1,\ldots,x_n)}}=(\overline{f_n})_{(\sigma,x_{\pi(g)^{-1}(1)},\ldots,x_{\pi(g)^{-1}(n)})}~.$$

$$\frac{P}{f,g\colon (X,\alpha,\phi,\phi_\eta)\rightarrow (Y,\beta,\psi,\psi_\eta)}$$

$$\frac{P}{P-}$$

$$transformation$$

$$\gamma\colon f\Rightarrow$$

$$\frac{g}{n}$$

$$(0,0)*+P_n\times X^n="00";(30,0)*+P_n\times Y^n="10";(0,-20)*+X="01";(30,-20)*+Y="11";@/^1.5pc/^1\times f^n"00";"10";$$

$$\frac{2}{P}$$

$$\frac{2}{P}$$

$$\frac{2}{PAlg_s}$$

$$\frac{P}{P}$$

$$\frac{P}{P}$$

$$\frac{2}{P_sPAlg}$$

$$\frac{P}{P}$$

$$\frac{2}{K}$$

$$\frac{2}{K}$$

$$\frac{2}{K}$$

$$\frac{2}{K}$$

$$\frac{2}{K}$$

$$\frac{2}{K}$$

$$\frac{2}{K}$$

$$\frac{2}{K}$$

$$\frac{2}{K}$$