

$$\begin{array}{ccccc}
F(C_1) & \xleftarrow{F_{r_1}} & F(R) & \xrightarrow{F_{r_2}} & F(C_2) \\
\uparrow c_1 & & \uparrow r & & \uparrow c_1 \\
C_1 & \xleftarrow{r_1} & R & \xrightarrow{r_2} & C_2 \\
\downarrow f_1 & & \downarrow h & & \downarrow f_2 \\
D_1 & \xleftarrow{s_1} & S & \xrightarrow{s_2} & D_2 \\
\downarrow d_1 & & \downarrow s & & \downarrow d_2 \\
F(D_1) & \xleftarrow{F_{s_1}} & F(S) & \xrightarrow{F_{s_2}} & F(D_2)
\end{array}$$