

$$\begin{array}{ccccc}
 R & \xrightarrow{r_1} & T_1 & \xrightarrow{m} & T_2 \\
 \downarrow r & & \downarrow t_1 & & \downarrow t_2 \\
 F(R) & \xrightarrow{F(r_1)} & F(T_1) & \xrightarrow{F(m)} & F(T_2)
 \end{array}$$