

$$\begin{array}{ccc}
 & S_1 & \\
 \swarrow -\cup S_2 & & \searrow -\cup (S_2 \cup S_3) \\
 S_2 \cup S_3 & \xrightarrow{-\cup S_3} & S_1 \cup S_2 \cup S_3 = B_1
 \end{array}$$