

$$\begin{array}{ccc}
 L \times_X K & \hookrightarrow & L \\
 \downarrow & & \downarrow \\
 K & \hookrightarrow & K + L \\
 & \searrow i & \nearrow j \\
 & & X
 \end{array}$$

A commutative diagram illustrating a relationship between spaces L , K , X , and their product $L \times_X K$. The diagram shows:

- A horizontal inclusion $L \times_X K \hookrightarrow L$ at the top.
- A horizontal inclusion $K \hookrightarrow K + L$ in the middle.
- A vertical map $L \times_X K \rightarrow K$ on the left.
- A vertical map $L \rightarrow K + L$ in the middle.
- A curved arrow $i: K \rightarrow X$ at the bottom left.
- A curved arrow $j: L \rightarrow X$ at the bottom right.
- A dashed arrow $\theta: K + L \rightarrow X$ connecting the middle row to the bottom right.