

Step 1

$$\begin{array}{ccccc}
 & & \text{pt} \times \text{pt} & \xrightarrow{\text{id}_{\text{Sets}|\text{pt}, \text{pt}}^{\otimes, -1}} & \text{pt} \otimes_{\text{Sets}} \text{pt} & & \\
 & \nearrow \lambda_{\text{pt}}^{\text{Sets}, -1} & & & \searrow \text{id}_{1_{\text{Sets}}}^{\otimes, -1} \times \text{id}_{\text{pt}} & & \\
 \text{pt} & \xrightarrow{\lambda_{\text{pt}}^{'-1}} & 1_{\text{Sets}} \otimes_{\text{Sets}} \text{pt} & & & & \\
 \downarrow [a] & & \downarrow \text{id}_{1_{\text{Sets}}} \times [a] & & & & \\
 & & 1_{\text{Sets}} \otimes_{\text{Sets}} A & & & & \\
 & & \downarrow \text{id}_{1_{\text{Sets}}} \times [a] & & & & \\
 & & A & & & & \\
 & \nearrow \lambda_A^{\text{Sets}, -1} & & & \searrow \text{id}_{1_{\text{Sets}}}^{\otimes, -1} \times \text{id}_A & & \\
 & & \text{pt} \times A & \xrightarrow{\text{id}_{\text{Sets}|\text{pt}, A}^{\otimes, -1}} & \text{pt} \otimes_{\text{Sets}} A & & \\
 & & \downarrow \text{id}_{\text{pt}} \times [a] & & \downarrow \text{id}_{\text{pt}} \otimes_{\text{Sets}} [a] & & \\
 & & \text{pt} \times A & \xrightarrow{\text{id}_{\text{Sets}|\text{pt}, A}^{\otimes, -1}} & \text{pt} \otimes_{\text{Sets}} A & & \\
 & \nearrow \lambda_A^{'-1} & & & \searrow \text{id}_{1_{\text{Sets}}}^{\otimes, -1} \times \text{id}_A & & \\
 A & \xrightarrow{\lambda_A^{'-1}} & 1_{\text{Sets}} \otimes_{\text{Sets}} A & & & &
 \end{array}$$

(1) (2) (3) (4) (5)