4.3.3.6 Example 4

Q $q = 37$, $a = 13$

$X_A = 10$ $X_B = 7$ $y = a^x \text{ MOD } q$

Solution

$$\begin{tikzcd}
13^{10} \bmod 37 = 4 \arrow[dr] & 13^{7} \bmod 37 = 32 \arrow[dl] \\
32^{10} \bmod 37 = 30 & 4^{7} \bmod 37 = 30
\end{tikzcd}$$