Problem 04: n-th Power

Calculate the nth power of x.

$$
\begin{aligned}
A &= \underset{x}{\mathbb{Z}} \times \underset{n}{\mathbb{N}_0} \times \underset{y}{\mathbb{Z}} \\
B &= \underset{x'}{\mathbb{Z}} \times \underset{n'}{\mathbb{N}_0} \\
Q &= (x' = x) \wedge (n' = n) \\
R &= Q \wedge (y = x^n)
\end{aligned}
$$