Algorithm 3.1.23 Determine whether a function from a finite set of integers to a finite set of integers is surjective.

1: **procedure** SURJECTION(f: function; A: finite set of integers; B: finite set of integers)
2:      **for** $b \in B$ **do**
3:          **for** $a \in A$ **do**
4:              **if** $b = f(a)$ **then**
5:                  $break$ ▷ So far so good.
6:              **else**
7:                  **return** $\perp$ ▷ $\neg \forall b \exists a (f(a) = b)$
8:              **end if**
9:          **end for**
10:      **end for**
11:      **return** $True$
12: **end procedure**