Two Sum

x_1 | x_2 | ... | x_n $\wedge$ Target $\Rightarrow$

Define Dictionary:

$$A \begin{bmatrix} \text{int value in} \\ \text{input array} \end{bmatrix} = \text{int index in input array}$$

x_1 | x_2 | ... | x_n

For each X_i

OBSERVE:
If X_i is part of solution other
part will be target - X_i

If $A\big[\text{target} - x_i\big]$ == null

Then we have not encountered that value in the array yet

$$A\big[x_i\big] = x_i \text{ index in input array}$$

Else solution is $(x_i, A[\text{target} - x_i])$