Let's get a little more precise & general.

First, before we talk about interpretations of particular symbols, we should fix the domain $\mathcal{D}$ of all the things we may wish to talk about in our FO language.

Then we interpret individual constants $c$ as individuals in $\mathcal{D}$, i.e.,

$$I(c) \in \mathcal{D} \quad \text{also written } c^I \in \mathcal{D}$$

We interpret monadic (1-place) predicate constants $\pi$ as sets of individuals in $\mathcal{D}$, i.e.,

$$I(\pi) \subseteq \mathcal{D} \quad \text{also written } \pi^I \subseteq \mathcal{D}$$

For truth, we will now write $\mathcal{M}(\varphi)$, where $\mathcal{M} = (\mathcal{D}, I)$, the model.

What is $\Pi^I$ for 2-place, 3-place, etc. predicates?