2b) FOL brings structures to facts which can be built from:

Objects such as people, cars

Functions like father of

Relations such as bigger than

A first order signature is a pair (F, P) where,

F - indexed family (F_n) n $\in \mathbb{N}$ of sets of function symbols (operations)

P – indexed family (P_n) n $\in \mathbb{N}$ of sets of relation symbols (predicates)

For σ $\in F_n$ and π $\in P_n$, n is called arity.

Constant symbols are function symbols with arity zero.