

$$\left\{ t \mid (\exists a) \wedge (\text{Actividad}(a) \wedge (\exists b) \wedge (\text{Socio}(b) \wedge a.\text{responsable} = b.\text{dni} \wedge (\exists c) \wedge (\text{Instalaci3n}(c) \wedge c.\text{responsable} = b.\text{dni} \wedge a.\text{responsable} = c.\text{responsable} \wedge t.\text{nombre} = b.\text{nombre}))) \right\}.$$

$$\left\{ n \mid (\exists d) \text{Actividad}(\text{id-}a, n_1, d, p, \text{ius}, g) \wedge \text{Instalaci3n}(\text{id-inst}, n_2, c, d) \wedge \text{Socio}(d, n, t, \neq n) \right\}.$$

3.2.-
$$\begin{cases} A = \pi_{\text{id-instalaci3n}} (\sigma_{\text{capacidad} > 50} (\text{Instalaci3n})). \\ B = (\rho_{\text{instalaci3n} \rightarrow \text{id-instalaci3n}} (\pi_{\text{instalaci3n}} (\text{Actividad} \bowtie A))). \end{cases}$$

$$\left\{ t \mid (\exists a) \wedge (\text{Instalaci3n}(a) \wedge a.\text{capacidad} > 50 \wedge (\exists b) \wedge (\text{Actividad}(b) \wedge b.\text{instalaci3n} = a.\text{id-instalaci3n})) \right\}.$$

$$\left\{ n \mid (\exists a) \text{Instalaci3n}(a, n, e, r) \wedge c > 50 \wedge \text{Actividad}(\text{id-}a, n, \text{res}, p, a, g) \right\}.$$

3.3.-
$$\begin{cases} A = \pi_{\text{dni}} (\text{Instalaci3n}) - \pi_{\text{dni}} (\text{Actividad}). \\ B = \pi_{\text{nombre}} (\text{Instalaci3n} \bowtie A). \end{cases}$$

$$\left\{ t \mid (\exists a) (\text{Instalaci3n}(a) \wedge t.\text{nombre} = a.\text{nombre} \wedge \neg (\exists b) \wedge (\text{Actividad}(b) \wedge a.\text{responsable} = b.\text{responsable})) \right\}.$$

$$\left\{ n \mid (\exists a) \text{Instalaci3n}(a, n, e, r) \wedge \neg \text{Actividad}(\text{id-}a, n_2, \text{re}, p, a, g) \right\}.$$

3.4.-
$$\begin{cases} A = \pi_{\text{id-actividad}} (\rho_{\text{responsable} \rightarrow \text{dni}} (\text{Actividad})) \bowtie (\sigma_{\text{nomvoc} = \text{"JSE"}} (\rho_{\text{nombre} \rightarrow \text{nomvoc}} (\text{Socio}))). \\ B = \pi_{\text{dni}, \text{id-actividad}} (\text{participa}). \\ C = B \div A. \\ D = \pi_{\text{nombre}} (C \bowtie \text{Socio}). \end{cases}$$