(1a) Which locations grow both the beans "Catuai" and "Catimor"?

π_FL(σ_BN='Catuai'(BEAN))) ∧ (π_FL(σ_BN='Catimor' (BEAN))

(1b) Which people drink a coffee that contains a bean from "Brazil" or from "Peru"?

π_P(σ_(FL='Brazil' or FL='Peru') (BEAN * HAS_BEAN * DRINKS))

(1c) Which countries produce all the beans in the coffee "Breakfast Delight" (or "BD")?

R ← π_FL,BN (BEAN)
S ← π_BN (σ_C='BD' (HAS_BEAN))
we have two relations R and S with attributes respectively A and B, their division can be defined as : for a better understanding refer- (https://users.abo.fi/soini/divisionEnglish.pdf)
where $R \div S = \pi_{A-B}(R) - \pi_{A-B}((\pi_{A-B}(R) \times S) - R)$
in our case which is =π_FL(R) – π_FL((π_FL(R) x S) - R)

(2a) Which locations contribute a bean to a coffee consumed by “Chris”?

{b.FROM_LOCATION | BEAN(b) ∧ $\exists(h,d)$ (HAS_BEAN(h) ∧ $\mathrm{DRINKS}(d)$ ∧ d.COFFEE=h.COFFEE ∧ $h.\mathrm{BEAN\_NAME}=b.\mathrm{BEAN\_NAME}$ ∧ $d.\mathrm{PERSON}=$’Chris’) }

(2b) Which people don't drink any of the coffees that are consumed by "Chris"?

{d.PERSON |DRINKS(d)∧ $\forall(d1)$((DRINKS(d1) ∧ $d.\mathrm{PERSON}=d1.\mathrm{PERSON}$)
⇒¬∃d2(DRINKS(d2)∧d2.PERSON=’Chris’∧d2.COFFEE=d1.COFFEE))}

(2c) Which people drink a set of coffees that together contain all the beans from “Hawaii”?

{d.PERSON | DRINKS(d) ∧ $\forall(b)$ ((BEAN(b) ∧ b.FROM_LOCATION ="Hawaii")⇒$\exists(d1,h)$(
DRINKS(d1) ∧ HAS_BEAN(h) ∧ h.COFFEE=d1.COFFEE ∧ d1.PERSON=d.PERSON
∧h.BEAN_NAME=b.BEAN_NAME))}