

### 7.3.x. Exercise questions

1. Analyze the following in as much detail as possible:
  - a. *Not everyone was enthusiastic but no one was disappointed.*
  - b. *Any defective unit will be repaired or replaced.*
  - c. *The bill will pass quickly if every member of the committee supports it.*
  - d. *Nothing suited both Ann and Bill.*
  - e. *Tom didn't sign up anyone; however, he didn't contact everyone.*
  - f. *If a bill arrives, it will be forwarded to you.*
  - g. *If the prize isn't won by anyone, it will be added to the next drawing.*
  - h. *Ralph looked in every closet and cabinet.*
  - i. *The alarm will sound if anyone who doesn't have the combination tries to open the door.*
  
2. Synthesize idiomatic English sentences that express the propositions that are associated with the logical forms below by the intensional interpretations that follow them. In some cases, you will have a choice between carrying connectives into the final English sentence and capturing them by the type of generalization you use. Do the former when possible, but answers of both sorts will be given.
  - a.  $\neg (\forall x: Lx) Gx$   
[G:  $\lambda x (x \text{ is gold})$ ; L:  $\lambda x (x \text{ glitters})$ ]
  - b.  $(\forall x: Dx \wedge Nxc) Bx \wedge (\forall x: Dx \wedge Nxc) Wx$   
[B:  $\lambda x (x \text{ barked})$ ; D:  $\lambda x (x \text{ is a dog})$ ; N:  $\lambda xy (x \text{ was in } y)$ ; W:  $\lambda x (x \text{ wagged } x \text{ 's tail})$ ; c: *the cage*]
  - c.  $\forall x \neg Ltxt$   
[L:  $\lambda xyz (x \text{ let } y \text{ stop } z)$ ; t: *Tom*]
  - d.  $(\forall x: Px \wedge \neg Rx) \neg Fx$   
[F:  $\lambda x (x \text{ is finished})$ ; P:  $\lambda x (x \text{ is a federal project})$ ; R:  $\lambda x (x \text{ is a road})$ ]

e.  $\forall x (Oxr \rightarrow Gx)$

[G:  $\lambda x$  (x *is gone for good*); O:  $\lambda xy$  (x *was left on* y); r: *the roof*]

f.  $(\forall x: Px \wedge Mtx) (Ktx \vee Kxt)$

[K:  $\lambda xy$  (x *knew* y); M:  $\lambda xy$  (x *met* y); P:  $\lambda x$  (x *is a person*); t: *Tom*]