

### 8.3.x. Exercise questions

1. Analyze the following in as much detail as possible.
  - a. *If Oswald didn't shoot Kennedy, someone else did.*
  - b. *No one but Frank saw Sue.*
  - c. *Ed and only Ed was awake.*
  - d. *Everyone except Tom, Dick, and Harry arrived early.*
  - e. *Adam and another officer thanked everyone else.*
  - f. *At least two things went wrong.*
  - g. *Bill spoke to at most one person.*
  - h. *Just one thing will do.*
  - i. *Ann saw more than one assassin.*
  - j. *Ann saw exactly two assassins.*
2. Synthesize idiomatic English sentences that express the propositions associated with the logical forms below using the intensional interpretations that follow them.
  - a.  $Fth \wedge (\exists x: \neg x = h) Ltx$   
[F:  $\lambda xy$  (x *found* y); L:  $\lambda xy$  (x *lost* y); h: *Tom's hat*; t: *Tom*]
  - b.  $(\exists x: Px) (\exists y: Py \wedge \neg y = x) Sxy$   
[P:  $\lambda x$  (x *is a person*); S:  $\lambda xy$  (x *spoke to* y)]
  - c.  $(\forall x: Px \wedge \neg x = m) \neg Rsx$   
[P:  $\lambda x$  (x *is a person*); R:  $\lambda xy$  (x *recognized* y); m: *Mary*; s: *Sam*]
  - d.  $(\exists x: Sx) Ox \wedge \neg (\exists x: Sx) (\exists y: Sy \wedge \neg y = x) (Ox \wedge Oy)$   
[S:  $\lambda x$  (x *is a store*); O:  $\lambda x$  (x *was open*)]