

2.1.xa. Exercise answers

1. a. *Mike visited London* \wedge *Mike visited Paris*

$$L \wedge P$$

both L and P

[L: *Mike visited London*; P: *Mike visited Paris*]

- b. *Ann wanted white wine* \wedge *Bill and Carol wanted red wine*
Ann wanted white wine \wedge (*Bill wanted red wine* \wedge *Carol wanted red wine*)

$$A \wedge (B \wedge C)$$

both A and both B and C

[A: *Ann wanted white wine*; B: *Bill wanted red wine*;
C: *Carol wanted red wine*]

- c. *It will rain and clear off* \wedge *it will rain*
(*it will rain* \wedge *it will clear off*) \wedge *it will rain*

$$(R \wedge C) \wedge R$$

both both R and C and R

[C: *it will clear off*; R: *it will rain*]

- d. *That is a market* \wedge *that is new relative to other markets but growing*
That is a market \wedge (*that is new relative to other markets* \wedge *that is growing*)

$$M \wedge (N \wedge G)$$

both M and both N and G

[G: *that is growing*; M: *that is a market*; N: *that is new relative to other markets*]

- e. *Confucius is affable but dignified* \wedge *Confucius is austere but not harsh* \wedge *Confucius is polite but completely at ease*
(*Confucius is affable* \wedge *Confucius is dignified*) \wedge
(*Confucius is austere* \wedge *Confucius is not harsh*) \wedge
(*Confucius is polite* \wedge *Confucius is completely at ease*)

$$(A \wedge D) \wedge (S \wedge H) \wedge (P \wedge E)$$

(both A and D) and (both S and H) and (both P and E)

[A: *Confucius is affable*; D: *Confucius is dignified*;
E: *Confucius is completely at ease*; H: *Confucius is not harsh*; P: *Confucius is polite*; S: *Confucius is austere*]

- f. *Tim lost his glasses and his wallet* \wedge *Tim's glasses and wallet were each returned*
(*Tim lost his glasses* \wedge *Tim lost his wallet*) \wedge (*Tim's*

glasses were returned \wedge *Tim's wallet was returned*)

$$(G \wedge W) \wedge (R \wedge T)$$

both both G and W and both R and T

[G: *Tim lost his glasses*; R: *Tim's glasses were returned*;

T: *Tim's wallet was returned*; W: *Tim lost his wallet*]

- g. *Tim lost his glasses and his wallet* \wedge *one person found both Tim's glasses and his wallet*

(Tim lost his glasses \wedge *Tim lost his wallet)* \wedge *one person found both Tim's glasses and his wallet*

$$(G \wedge W) \wedge O$$

both both G and W and O

[G: *Tim lost his glasses*; O: *one person found both Tim's glasses and his wallet*; W: *Tim lost his wallet*]

Note: One person found both Tim's glasses and his wallet cannot be analyzed further because One person found Tim's glasses \wedge *one person found Tim's wallet* does not imply that the same person found both.

2. a. $A \wedge (B \wedge C)$

- b. $(A \wedge B) \wedge C$

- c. both both A and B and both C and D

- d. both A and both both B and C and D

- e. both both A and both B and C and D

- f. $((A \wedge B) \wedge C) \wedge D$

3. a. *(Fred visited Venice* \wedge *Fred visited Florence)* \wedge *Fred spent a week in Rome*
Fred visited Venice and Florence \wedge *Fred spent a week in Rome*

Fred visited Venice and Florence, and he spent a week in Rome

- b.** *(he was a judge \wedge (he was stern \wedge he was fair)) \wedge he had an excellent knowledge of the law*
(he was a judge \wedge he was stern but fair) \wedge he had an excellent knowledge of the law
He was a stern but fair judge who had an excellent knowledge of the law

- c. $(\text{we arrived cold} \wedge \text{we arrived tired} \wedge \text{we arrived hungry})$
 $\wedge (\text{we left warm} \wedge \text{we left stuffed} \wedge \text{we left sleepy})$
We arrived cold, tired, and hungry \wedge we left warm, stuffed, and sleepy
We arrived cold, tired, and hungry; and we left warm, stuffed, and sleepy
- d. *Old King Cole was a merry old soul \wedge Old King Cole was a merry old soul*
Old King Cole was a merry old soul, and a merry old soul was he

4. Numbers below the tables indicate the order in which values were computed

a.

A	B	C	A \wedge (B \wedge C)
T	T	F	Ⓕ F

b.

A	B	C	D	((A \wedge D) \wedge C) \wedge (B \wedge A)
T	T	F	T	T F Ⓕ T
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