

Discussion Week 3 Solutions

3.

a. $A = \{SSF, SFS, FSS\}$.

b. $B = \{SSS, SSF, SFS, FSS\}$.

c. $C = \{SSS, SSF, SFS\}$.

d. $C' = \{SFF, FSS, FSF, FFS, FFF\}$.

$$A \cup C = \{SSS, SSF, SFS, FSS\}.$$

$$A \cap C = \{SSF, SFS\}.$$

$B \cup C = \{SSS, SSF, SFS, FSS\}$. Notice that B contains C, so $B \cup C = B$. $B \cap C = \{SSS, SSF,$

$SFS\}$. Since B contains C, $B \cap C = C$.

5.

a. $3^3=27$

b. $\{111, 222, 333\}$

c. $\{123, 132, 213, 231, 312, 321\}$

d. $\{111, 131, 113, 133, 311, 313, 331, 333\}$

19.

a. 0.8841

b. 0.0435

25.

a. 0.85

b. 0.15

c. 0.22

d. 0.35