HW2 参考解答

2.38

(a) $8! = 40320$.

(b) There are 4! ways to seat 4 couples and then each member of a couple can be interchanged resulting in $2^4(4!) = 384$ ways.

(c) By Theorem 2.3, the members of each gender can be seated in 4! ways. Then using Theorem 2.1, both men and women can be seated in $(4!)(4!) = 576$ ways.

2.63

(a) 0.32;

(b) 0.68;

(c) office or den.

2.72

$$P(A' \cap B') = 1 - P(A \cup B) = 1 - (P(A) + P(B) - P(A \cap B) = 1 + P(A \cap B) - P(A) - P(B).$$