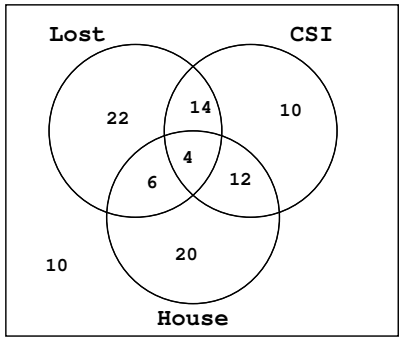
1. False
   False
   True

2. Answer.



3. (a) $20 + 3 + 14 + 16 + 20 = 73$
   (b) $\dfrac{20 + 7 + 16 + 3}{110}$
   (c) $P(C|A) = \dfrac{10/110}{44/110} = \dfrac{10}{44}$

4. (a) $\dfrac{40 + 80}{583}$
   (b) $P(none|Jr) = \dfrac{30}{230}$

5. draw a dice chart
   (a) $\dfrac{7}{32}$
   (b) $\dfrac{1}{11}$

6. 0.1

7. 2^7

8. $\dfrac{3}{13}$

9. $\dfrac{\frac{1}{31} + \frac{5}{31}}{\frac{1}{31} + \frac{5}{31} + \frac{6}{31} + \frac{4}{31}} = \dfrac{3}{8}$

10. $P(male|cadet) = \dfrac{0.55 * 0.25}{0.55 * 0.25 + 0.45 * 0.08}$

11. $C(4, 2) * 2! * 7!$ or $(P(4, 2) * 7!$

12. $\dfrac{6}{11} * \dfrac{4}{13} + \dfrac{5}{11} * \dfrac{8}{13}$

13. $C(20, 5) * C(15, 4) * C(11, 2) * C(9, 1)$

Check the back of the page for more problems.

14. (a) $C(9,2)C(7,3)C(3,1) + C(9,2)C(7,4)$

    (b) $C(9,3)C(10,3) + C(7,2)C(12,4) - C(9,3)C(7,2)C(3,1)$

    (c) $\dfrac{C(9,5)C(10,1) + C(7,5)C(12,1)}{C(19,6)}$

15. draw a tree. for the drawig of the balls consider the draws as red or not red.

$$\frac{1}{4}\frac{5}{14} + \frac{3}{4}\frac{5}{14}\frac{9}{13} + \frac{3}{4}\frac{9}{14}\frac{5}{13}$$

Check the back of the page for more problems.