

1. (a) $P(\text{woman}) = 4/10 = 0.4$ or 40%
 (b) $P(\text{man}) = 6/10 = 0.6$ or 60%
 (c) $P(\text{President}) = 1/10 = 0.1$ or 10%
2. $2/3$
3. (a) $1/6$ (b) $1/6$ (c) $1/3$
4. (a) With replacement, $P(\text{Red first and Green second}) = (6/17)(8/17) = 0.166$ or 16.6%
 (b) Without replacement, $P(\text{Red first and Green second}) = (6/17)(8/16) = 0.176$ or 17.6%
5. $P(\text{woman and computer science major}) = P(\text{woman})P(\text{computer science major given woman}) = (0.64)(0.12) = 0.077$ or about 7.7%
6. (a) $180/417$ (b) $65/115$
 (c) $166/417$ (d) $61/417$
 (e) $61/101$ (f) $65/180$
 (g) No; $P(\text{neutral}) = 166/417$ is not equal to $P(\text{neutral, given freshman}) = 61/101$

7. 6;



8. ${}^6_1 C_5 = 4368$

9. $C_{24,4} = 10,626$