1. (18 pts.) (a) F; (b) F; (c) F; (d) F; (e) T; (f) F; (g) T; (h) F; (i) T

2. (9 pts.) (a) 0.97656%; (b) 0.097656%; (c) 98.9%

3. (12 pts.) (a) 66.2%; (b) 2.1%; (c) 62%, 70.4%, among all registered voters in Hayward

4. (8 pts.) (ii); Since the median is close to the low-end of the salary range and very far from the high-end of the salary range, this suggests that the salary histogram has a long right tail. So the average income is much larger than the median income, i.e. the owners were paying out much more than 746 \times \$500,000.

5. (14 pts.) (a) 25,000; (b) number of cars owned; (c) T; (d) T; (e) close to 0%

6. (8 pts.) False. This problem is serious because of non-response bias. Additional people brought into the sample are likely to differ from non-respondents, and do not fix the problem of non-response bias.

7. (8 pts.) 20 \pm 3

8. (8 pts.)

(a) dependent in sec. 003, independent in sec. 007
(b) F; gender and classification are dependent
(c) T; gender and classification are independent
(d) F; picking a sophomore and picking a man are not mutually exclusive.

9. (15 pts.) (a) 11.83; (b) face of the die; (c) 1, 0; (d) 6, 600; (e) 600 draws; (f) 16\frac{2}{3}%; (g) 71; (h) 100; (i) sum; (j) 9.1287; (k) -3.18, almost 0%; (l) No; (m) T; (n) 50; (o) 2 or 3, 1; (p) F

10. (Bonus: 8 pts.) (a) -$52.63, $44.10; (b) 11.7%

11. (Bonus: 6 pts.) 520.54