Psychology 281 Assignment 4 KEY

1. Sports and gambling have an element of chance (i.e., there are random events that occur outside the athlete/gambler's control). As such, an athlete/gambler may win through a chance effect. In trying to explain the win, a correlation (e.g., wearing green socks) may "appear" causal. Two issues: treating correlations as causation and the increased random element in sports or games of chance.

2. Looking to see that there is a gradual increase in behavioural appropriateness to the task selected with appropriate reinforcement delivered for each component. Backing up a step as necessary.

3. No obvious CS.

4A. $B1/(B1+B2) = R1/(R1+R2)$
     $1377/(1377+578) = 180/(180+72)$
     $0.704 = 0.714$
     This is matching

4B. $B1/(B1+B2) = R1/(R1+R2)$
     $1382/(1382+1740) = 180/(180+72)$
     $0.443 = 0.714$
     This is not matching

4C. $B1/(B1+B2) = A1\ R1/(A1R1+A1R2)$
     $0.443 = 180/(180+72A2)$
     $79.7 + 31.9A2 = 180$
     $A2 = 3.14$ or approximately 3 additional "pieces" of reinforcer was provided on key 2

5. Ms. Jones. Because Ms. Jones tests on a variable time schedule, any day could be the test day, so studying the night before could be beneficial. For Mr. Smith, students only need to study Thursday night.

6A. She is spoiled by her parents. Therefore, she does not need to speak to get what she wants. There is no motivation for her to speak.

6B. 1. Parents must stop spoiling her, and 2. implement a contingency whereby Mary-Lou must speak to receive what she wants: "words for wants."

7. Could be: FI FR VI VR
               FR FI VR VI
               FI VI FR VR
               FR VR FI VI
       Need an explanation that accounts for the F/V sequence and the R/I sequence. Because fixed is consistent, always know time/number responses needed (within some approximation); variable may be have occasional times/number of responses well beyond the average, so the

"high" time/number of responses in extinction not as unexpected. re: R/I there's not a single answer for this. If, for example, you were working with adult humans, most are pretty good at counting, but might rely heavily on clocks for telling time; as such, might be easier to realizie ratio is on extinction than interval. Conversely, if using non-humans, that generally can't count beyond 3 before shifting to estimation, but do have to utilize various internal clocks or, perhaps, interim and terminal behaviours for daily timing tasks, it might be harder to distinguish ratio from extinction. Other answers are also acceptable, depending on how well their internal logic holds together.