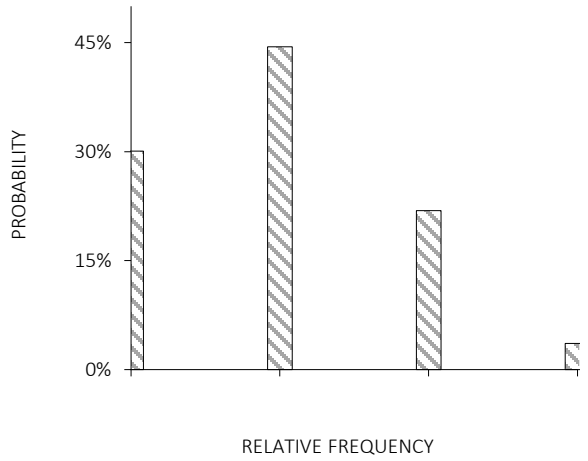
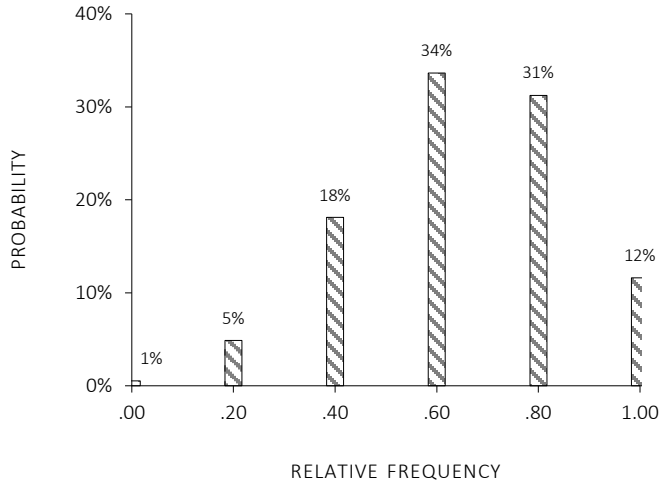
Chapter 7 handout

(1) A jar of marbles contains 33 percent red marbles. If three marbles are about to be selected from this jar, what is the probability of getting zero red marbles (i.e., 0 out of 3 red)? One red (i.e., 1 out of 3)? Two red (i.e., 2 out of 3)? All red (3 out of 3)?



(2) Using what you just figured out, fill in this distribution for three selections when P(R) = .33 (compare this distribution and the one below, and add the values that are missing in this one).

(3) Let's say that you have a jar of marbles and 65 percent of the marbles in the jar are red. If you are about to select five marbles from the jar, how many red marbles are you most likely to get? How likely are you to get this number of red marbles?

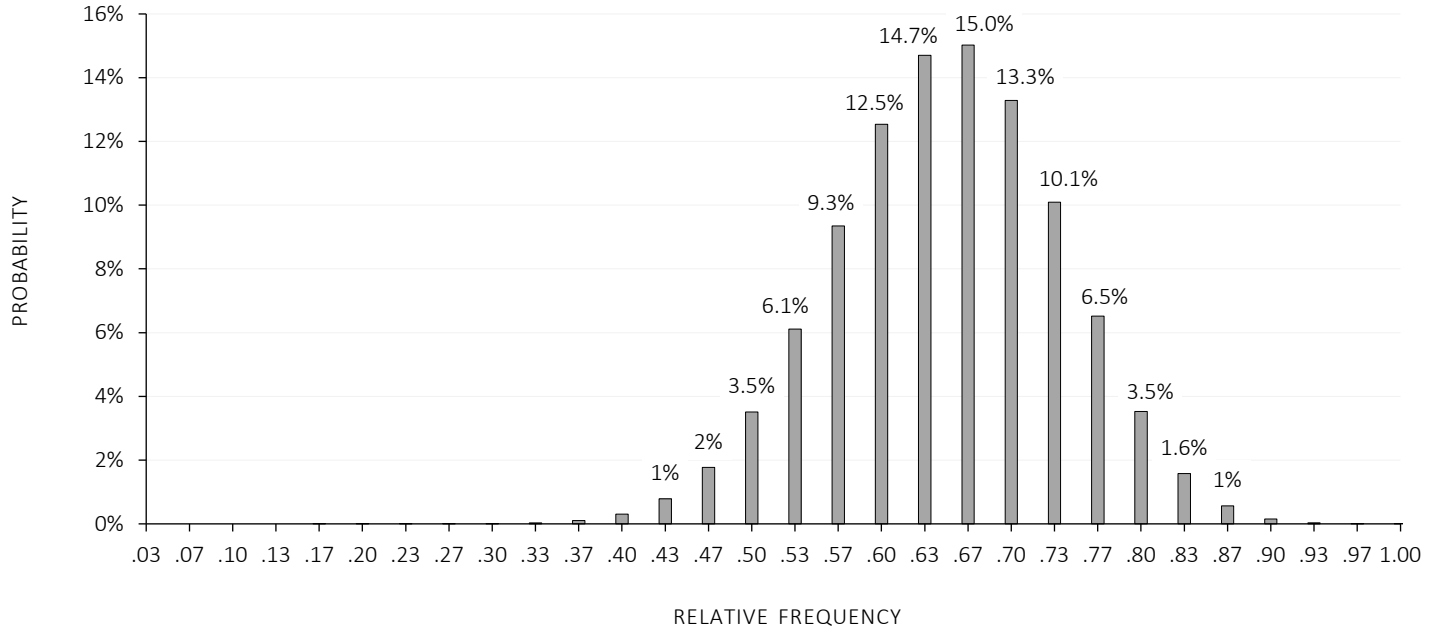


(4) [P1] Mary has a jar that contains 65 percent red marbles.

[P2] She is about to select five marbles from this jar.

[C] Therefore, there is a _____ chance that she will get exactly one or two red marbles.

(Use the sampling distribution on the other side of the page to complete the conclusion.)



P(R) = .65, 30 selections

(5) If someone is about to select 30 marbles from a jar that contains 65 percent red marbles, how likely is it that this person will get 15 or 16 or 17 or 18 or 19 or 20 or 21 or 22 or 23 or 24 or 25 red marbles? What rule is used to answer this question?