Nicholas Bernal

Math 80

27 July 2020

Homework #3

67. A. The statement that the total percent chance of rain is 130%. There cannot be a higher total of 100% for any probability.

B. In order for a baseball player to hit a home run he has to have a successful hit. A baseball players' chance of getting a successful hit is higher than probability of hitting a home run.

82. A. The sample space is s=0,00,1,2,3….36

B. 18/38= .47 47% chance of landing on red.

C. 12/38= .32 32% chance of landing on first dozen numbers.

D. 18/38= .47 47% chance of landing on an even number.

E. Getting an odd number is not a complement to the even numbers because 0 and 00 are included in the sample.

F. Two mutually exclusive events are landing on red or black. The other mutually exclusive event is landing on an even or odd number.

E. P(Even/1st Dozen)=.5 does not equal P(Even)=.47 so the events are not independent.

84. A. 36/38=.95 95% chance of landing on a color.

B. 12/38= .32 32% chance of landing on one of the dozens.

C. 18/38= .47 47% chance of landing on 1 to 18.

D. 18/38= .47 47% chance of landing on 19 to 36.

E. 12/38= .32 32% chance of landing on one of the columns.

F. 36/38= .95% chance of landing on an even or odd number.

85. A. s= G1,G2,G3,G4,G5,Y1,Y2,Y3

B. P(G)= 5/8 green cards

C. P(G/E)= 2/3 even numbered cards

D. P(G AND E)= 2/8

E. P(G OR E)= 6/8

F. P(G AND E)= 0 so the events cannot be mutually exclusive.

86. A. s=1,2,3,4,5,6,

B. P(A)= 6/36= .17

C. P(B)= 21/36= .58

D. P(A/B)= .08/.58= .14

E. P(A AND B) equals .083 which does not make them mutually exclusive because they must equal 0.

F. A and B are not independent events because P(A/B)= .14 which is not equal to P(A)= .17.