Homework 3 Mark Borovykh

67. a) We can't calculate the probability of 2 independent events by adding their percentages. In that case it would be multiplication, plus the probability cannot exceed 100%

b) The home run can't have greater probability than successful hit, because in order to get a home run you need a successful hit.

82) A) 1-36, Red, Black

B) 18/36=0.5%

C) 12/36=0.3%

D)18/36=0.5%

E) Yes, since you can only get odd or even numbers

F)Getting Red and Black

G) Yes, they both can happen at the same time

84) A)1/2 = 0.5%

B) 1/12=0.0833%

C) 18/36=0.5%

D) 17/36=0.422

E)0.08%

F)100%

85)A) 1g,2g,3g,4g,5g,1y,2y,3y

B) 0.625 %

C)100%

D)0.2343%

E)100%

F)no, they are not mutually exclusive, if we draw 1g we can still draw an even number

86) A) {(1,1) (1,2) (1,3) (1,4) (1,5) (1,6) (2,1) (2,2) (2,3) (2,4) (2,5) (2,6) (3,1) (3,2) (3,3) (3,4) (3,5) (3,6)(4,1) (4,2) (4,3) (4,4) (4,5) (4,6) (5,1) (5,2) (5,3) (5,4) (5,5) (5,6) (6,1) (6,2) (6,3) (6,4) (6,5) (6,6)}

B)0.097%

c)2/36=0.05%

D)Probability that events A or B would happen ) = 0.097+0.05=0.147%

E)No, because p(b)=(5,2)(2,5) and P(A) has one dice with number 3 or 4, which accoupled with even number cannot be summed to 7

F) They are independent events because the fact that one occurred does not affect the chance the other occurs.