

ECE 139
SPRING 2005
FRIDAY 10A-12P DISCUSSION
QUIZ #2
8 APRIL 2005

NAME:

1. You flip a fair coin twice and record the outcome.

a.) What is the sample space of the two-flip experiment?

b.) What is the probability of getting two heads in a row?

2. A theatre has 30 rows of seats, with 20 seats in each row. There is a single aisle down the center (each row has 10 seats on each side of the aisle). You are first in line and want to buy one ticket.

a.) what is the size of the sample space of possible seats you can get?

b.) If the probability of getting any seat is equal to any other seat, what is the probability of getting a seat on the center aisle?

c.) Give 2 examples of event spaces for this sample space.

FRIDAY 10A - 12P

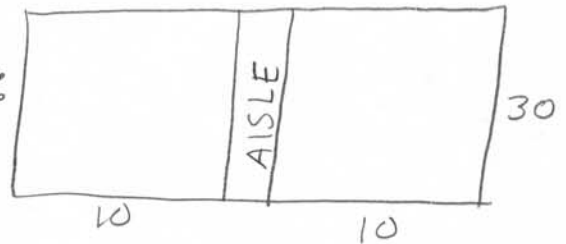
QUIZ #2

① a) $S = \{HH, TT, HT, TH\}$

⑥ $P[HH] = \frac{1}{4}$

② It helps to draw a picture:

①



$$10 \frac{\text{seats}}{\text{row}} \cdot 30 \frac{\text{rows}}{\text{section}} \cdot 2 \text{ sections} = \boxed{600 \text{ seats}}$$

⑥ $P[\text{seat on center aisle}] = \frac{60}{600} = \boxed{\frac{1}{10}}$

since each section has 30 seats on the center aisle,

③ There are many possible events:

{ front row }

{ back row }

{ left side }

{ odd seat }

etc.