

Physics 341 - Lecture 6

Assignment 1

"at least 2" \rightarrow

$x \geq 2$ | not 0, + not 1

\uparrow

0 $+\infty$

$\frac{1}{2}$ heads , $\frac{1}{2}$ heads

$\frac{1}{2} \times \frac{1}{2}$

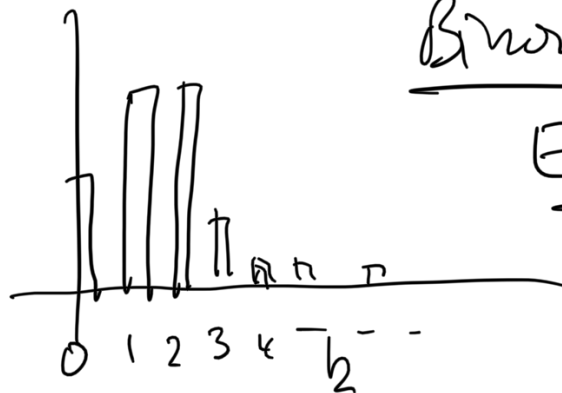
Question 9

$$a) \quad \mu = Np$$
$$\sigma = \sqrt{Np(1-p)}$$

$p = 0.01$

 $N = 150$

$$k = 0, \dots, 150$$



Binomial
Exact!

"Use binomial approximation"



Poisson Distribution.

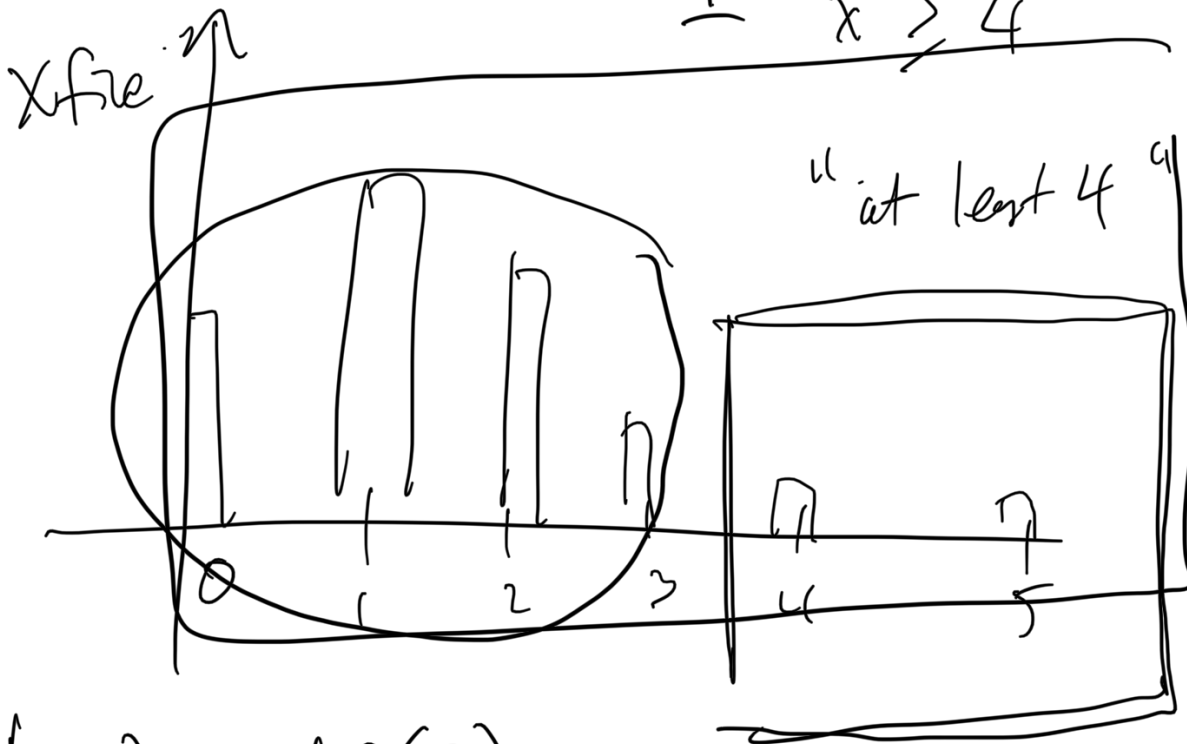
"... 1, ..., 4" $X \geq 4$

at least 1

not 0, 1, 2, 3

c) $P_{\text{board with property}} =$

$x \geq 4$



$1 - X_{cdf}(3)$

$X_{pmf}(4)$
 $+ X_{pmf}(5)$

P

$N = 150$

|| p apply

=

(p = .01)

Poisson & ² _{N > 50} ^{small}

X fire

→

N = 5

test

Binomial

P = P-probably.

.22

Case Study 8

TV

→

Consumer Reports

Wired

Testimonials

Facebook 6

Hey, I need a TV...
what's good?

Anecdotal information.

Open houses