3		
3		
5		01.28,2019
5	0	is within I side ) good of last I do = i (all)
5	- Change	Let X be a random variable.
	Heroin	data generating process.
		1 1 1000
2	after tout	
	901 011	x G Supp[X] ("support") := [x:p(x)>0]
3		1 de 5
3		Discrete random variable X
-		
-3		Supp [x]     N   countable infinity
-		Asidemov afronaturalization to esigness
-3		Size [# of oloments]
	Mary Ele	bl=(x)-and 1 (q-1) q= (q) and - x &
		Probability Mass Function (PMF)
		Barroulli " Barroulli" . Will a service and
		P(x) := P(X = x)
3	La	Two definitions (2-1) al al = 10 al mond on X
3		IP: IR -> [0.17
-		IP: Supp[x] $\rightarrow$ (0,1]
-	W. C.	
1		Cumulative Distribution function (CDF)
	r salt arr	F(x):= P(x < x) = E P(y) [y: y C Supp[x] & y < x
	to norting	
	250770	$F: \mathbb{R} \to [0,1]$
-		and the life that the stage of
2		Continuous random variable's
2	Carolisani	ad to ) strainistal are excisinapar
0		Supp[X] =   R   - uncountable infinity
0		a the self of selfer () = letpace = (1) and make
-		Cumulative distribution function (CDF) is defined
	- Jeft	the same as for discrete random wriable's
		ange retempted
200		

1	0.0 80 10
	$f(x) := d_{dx} [f(x)], Supp(x) := [x:f(x)>0]$
	aldered not a god x full
	Probability 2 1 C 1 Casa)
	Probability Density Function (PDF)
	By fundamental theorem of calculus
	asb,
	$P(XGEG, bJ) = F(b) - F(a) = \int_{a}^{b} f(x) dx$
	pliantai stationas - > 1/2 3 [7x] ggs?
istributed	Examples of discrete random variable's
2	$x \sim Bern(p)! = p^{x}(1-p)^{1-x}, Supp(x) = [0,1]$
	$\frac{1}{(3M^2)^{1/2}}, \frac{1}{(3M^2)^{1/2}}, \frac{1}{(3M^2)^{1/2}}$
	"Bernoulli" p(x) (proof for Gern)
-	(x = x) = e(x = x)
<u>I</u>	$X \sim B_{inom}(n,p); = {n \choose x} p^{x} (1-p)^{n-x}, Supp(x) = [0,1,,n]$
	"Binomial" (plan) (proof for Bignorn)
1 34 - 1	"Parameters" and activity of suitable
	The state of the s
X =	A tuning knob was a superior
	For Bernoulli, p is the "prob. of success" (delimition of success
	pe(0,1) (Success
TORY STATE OF	× = 1 0 (1) 0 (1)
	x - Bern (o) = Deg(o) = [o up]
	"degenerous" are deterministic (not the random)
	X ~ Born (1) = Deg(1) = [1 up ]
Annal.	p=0 or p=1 are degenerous cases.
colle	As a caution, He exclude then from the
4 - 12 - 17	parameter space

	Personelic model
	Parameter space
	100000000000000000000000000000000000000
	The set of all parameters values which lare non
	degenerate "choon" 149 my sintemoning to songe
\noton	sular vatamana ant agg segren
	parameter space for binomial
	PECO, 1) chara vio ax x x 17
\ \madon	n G [1,2], nJ = A) (notural numbers)
actional.	whensh thick
	Continuous random variable Examples proof
	Transport V v v V
	$X \sim Exp(\lambda) := \lambda e^{-\lambda x}$
(Dax) 09,	exponent (cx) > por
	Supp(x) = (0, 2)
9	(7 G(0, %) 11 = (4 2 x) 9 11 =
2	1-1 9
	[~ 0]
	= 1/2 (x-1)
)	Example $\times \sim N(u.6^2) = 1/0.0$
a kawi waa	Example $\times \sim N(\mu, \delta^2) := \frac{1}{1976^2} \cdot e^{-\frac{1}{1976^2}}$
lantuda!	normal random variable. Jozó (PDF)
Josef wdo	$Supp(x) = \mathbb{R} \qquad \delta^2 = Var(x) := \mathbb{E}[(x-\mu)^2]$
losel udo	$Supp(x) = R \qquad \delta^2 = Var(x) := E[(x-u)^2]$ $MGR \qquad Supple do up u block for some of the supple of th$
kowl udo	$Supp(x) = \mathbb{R} \qquad \delta^2 = Var(x) := \mathbb{E}[(x-\mu)^2]$
kasel velat	Supp(x) = $\mathbb{R}$ $\delta^2 = V_{Cr}(x) := \mathbb{E}[(x-\mu)^2]$ $M \subseteq \mathbb{R}$ supplies by $\delta^2 \in (0, \kappa)$
losel sed of	Supp(x) = $\mathbb{R}$ $\delta^2 = Var(x) := \mathbb{E}[(x-\mu)^2]$ MGR $\delta^2 \in (0, x)$ Let $\theta$ be the unknown parameter.
loss valor	Supp(x) = R $\delta^2 = Var(x) := E[(x-\mu)^2]$ MGR $\delta^2 = Var(x) := E[(x-\mu)^2]$ Let $\theta$ be the unknown parameter.  And $\overline{\theta}$ be the unknown parameters.
low wood	Supp(x) = R $\delta^2 = Var(x) := E[(x-\mu)^2]$ MGR $\delta^2 = Var(x) := E[(x-\mu)^2]$ Let $\theta$ be the unknown parameter.  And $\overline{\theta}$ be the unknown parameters.  And $\overline{\theta}$ be the parameter space
low fraction of the second of	Supp(x) = R $\delta^2 = Var(x) := E[(x-\mu)^2]$ MGR $\delta^2 = Var(x) := E[(x-\mu)^2]$ Let $\theta$ be the unknown parameter.  And $\theta$ be the unknown parameters.  And $\theta$ be the parameter space.  Capital theta
Some with the second of the se	Supp(x) = R $\delta^2 = Var(x) := E[(x-\mu)^2]$ MGR $\delta^2 = Var(x) := E[(x-\mu)^2]$ Let $\theta$ be the unknown parameter.  And $\theta$ be the unknown parameters.  And $\theta$ be the parameter space  Capital theta
	Supp(x) = $\mathbb{R}$ $\mathcal{S}^2 = Var(x) := \mathbb{E}[(x-\mu)^2]$ $\mathcal{S}^2 \subseteq (0, x)$ Let $\theta$ be the unknown parameter.  And $\overline{\theta}$ be the unknown parameters.  And $\overline{\theta}$ be the parameter space  Tapital theta $\mathcal{S}^2 = Var(x) := \mathbb{E}[(x-\mu)^2]$
	Supp(x) = $\mathbb{R}$ $\mathcal{S}^2 = Var(x) := \mathbb{E}[(x-\mu)^2]$ $\mathcal{N} \subseteq \mathbb{R}$ $\mathcal{S}^2 \subseteq (0, x)$ Let $\theta$ be the unknown parameter.  And $\overline{\theta}$ be the unknown parameters.  And $\overline{\theta}$ be the parameter space $\mathcal{S}^2 = Var(x) := \mathbb{E}[(x-\mu)^2]$
	Supp(x) = $\mathbb{R}$ $\mathcal{S}^2 = Var(x) := \mathbb{E}[(x-\mu)^2]$ $\mathcal{M} \subseteq \mathbb{R}$ $\mathcal{S}^2 \subseteq (0, x)$ Let $\Phi$ be the unknown parameter.  And $\Phi$ be the unknown parameters.  And $\Phi$ be the parameter space  **Capital theta* $\mathcal{X} \sim \mathbb{R} = \mathbb{E}[(x-\mu)^2]$ $\mathcal{X} \sim \mathbb{R} = \mathbb{E}[(x-\mu)^2]$ $\mathcal{S}^2 = Var(x) := \mathbb{E}[(x-\mu)^2]$
Aparl adol	Supp (x) = $\mathbb{R}$ $\mathcal{S}^2 = Var(x) := \mathbb{E}[(x-\mu)^2]$ $\mathcal{S}^2 \in (0, x)$ Let $\theta$ be the unknown parameter. I got  And $\overline{\theta}$ be the unknown parameters.  And $\overline{\theta}$ be the parameter space $\mathcal{S}^2 = Var(x) := \mathbb{E}[(x-\mu)^2]$ $\mathcal{S}^2 = Var(x) := $
losal soda	Supp(x) = $\mathbb{R}$ $\mathcal{S}^2 = Var(x) := \mathbb{E}[(x-\mu)^2]$ $\mathcal{M} \subseteq \mathbb{R}$ $\mathcal{S}^2 \subseteq (0, x)$ Let $\Phi$ be the unknown parameter.  And $\Phi$ be the unknown parameters.  And $\Phi$ be the parameter space  capital theta $\mathcal{K} \sim \mathbb{R} = \mathbb{E}[(x-\mu)^2]$

	Parametric model
	Acromolar space
aca s	$F := [p(x; \theta); \theta \in H]$
	of parametric purce PMF "needs"
	models 'PDF the parameter value
	If x, x,, xn are random variables
	p(x, x,, xn; ) = is the joint mass function
	Soint density function
100	
	If x,,, xn (independent)
	$p(x_1, x_2, \dots, x_n; \vec{\theta}) \stackrel{\checkmark}{=} p_1(x_1; \vec{\theta}) p_2(x_2; \vec{\theta}), \dots, p_n(x_n)$
	$= \prod_{P \in (X_{k}, \overline{P})} = \prod_{P \in (X_{k}, \overline{P})} P(x_{k}, \overline{P})$
2	$= \prod_{i=1}^{n} P_{i}(x_{i}; \vec{\theta}) = \prod_{i=1}^{n} P(x_{i}; \vec{\theta})$
(4)	Pa N - I I
	of x, xn ild independent & identicaly
	exel ald and adjustributed
	(3-x173=:(x)-x)= 2
	In the real world, you observe "data"
	$X = \langle 0, 0, 1, 0, 1, 0 \rangle$
	51 2 NI 7 NI
-	Step 1) Pick F. Pick a model  Beyond the scope of the course
	beyond the scape of the course
(	(Step I) Inference (i.e liqure out the value of 8
	Step 2) There it care of o
	X + (+) + 1 × + = - (+) + + × × × ×
	Three goals of Inference good grow x <0,0,1,0,1,0
	don't dilla
	Pair estimates: provide best single guess of.

