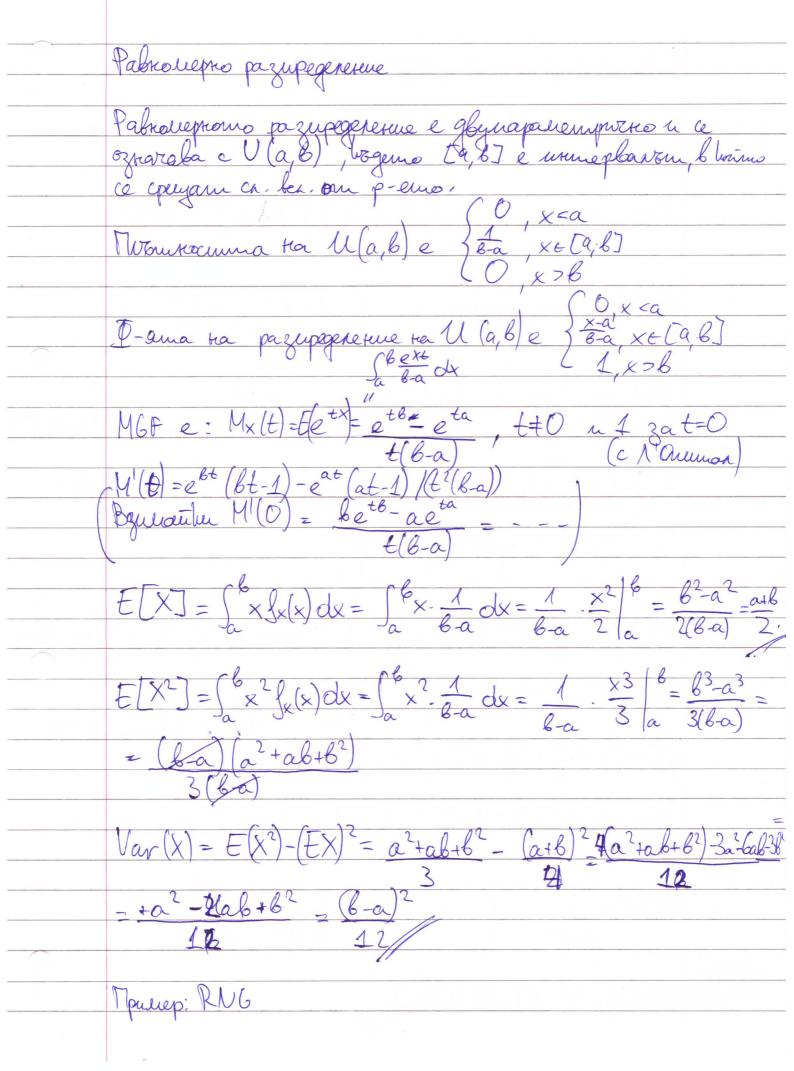
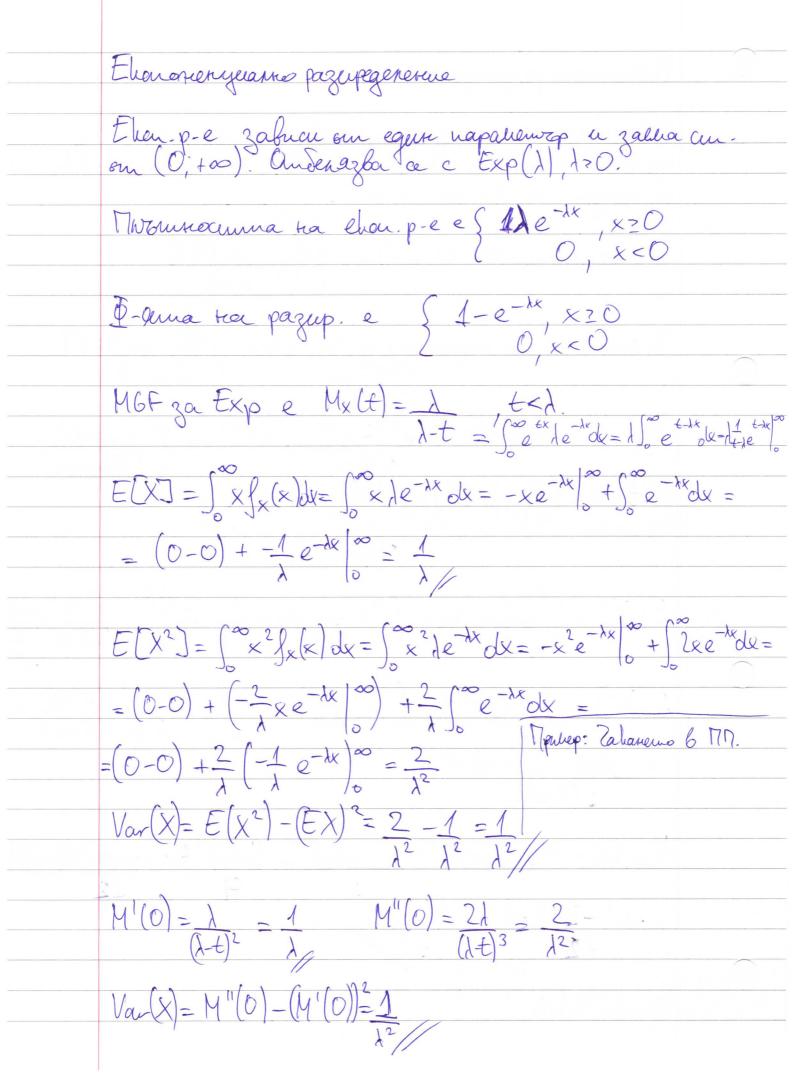
Egno paringegenerus e rempetiochamo plus d-ama my ra pazupegeneruse Fx(x)=P(X=x) e rempetiochama: Harira X a rapeboeramo no lazbale, re X e ch. kenp. beh. Heup-ch-beh-lome ga zahler Dezopoù ever curansecuer le goeph verme plan, za pazherta our guchplurama. beponnteament X ga e le garge numeroment ga talie puls yez numeropropare nos inventocuma: P(e x = b) = f(x) dx, brogens f(x) envolupeaning Canama usomkocm Morrelle ga nosythe om  $f_X(x) = \int_X (u) du$ , hamo  $f_X(u) \ge 0$  u Jx(n) du = 1 (froplupanocum) Malienneme ca xapalime pircumber na pazinegeneme, macho chepzania c eram-vealbane u gereneperana.
Conjecultyla p-a za renepipane (nopanigane) na maliennimie
(MCF). Mxt) = E[etx], brogens tel X-ch-bep. 3a rempetiochamme pazupegenettus whale Mx(t)= fetxfe(x) dx Also za gle pazup unahe le Mx(t) = Mx(t), To u Fx(x) = Fs(y).
Tpez hohermune lomen ga rahepun rahbaremo u
gerchepuluma, voti homo un = E(X").

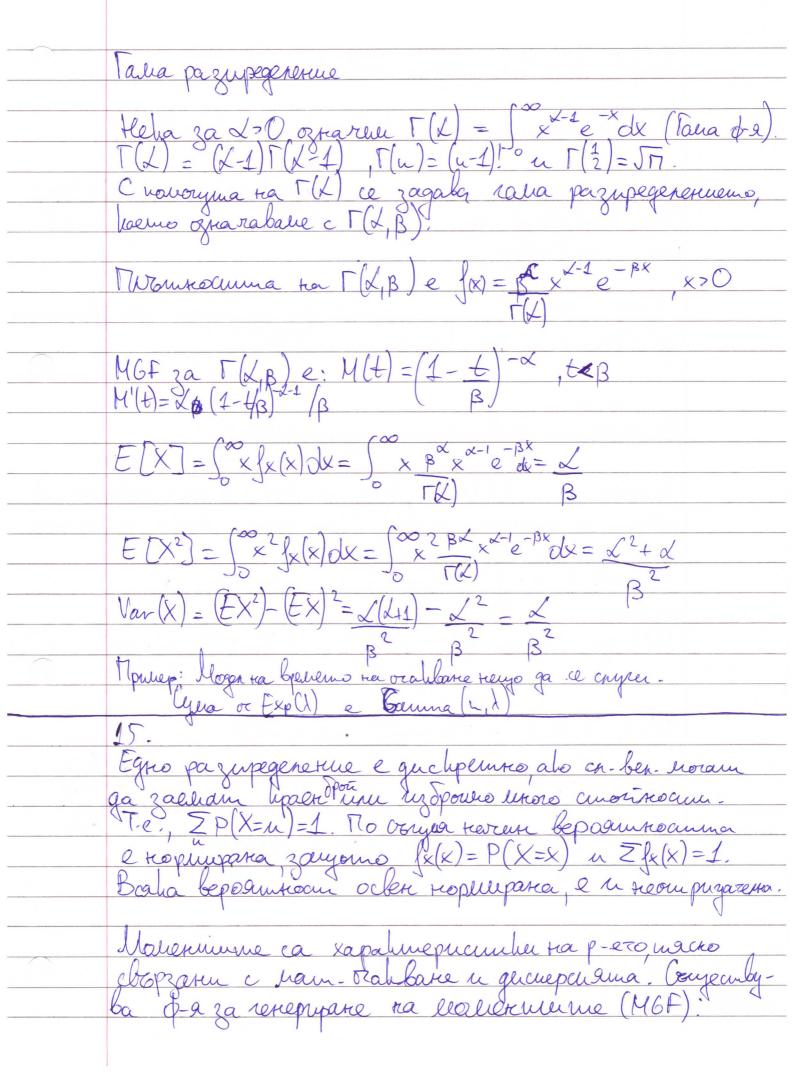
Hopiano pazupegenenue Hapuaphonio (oux Tayeobo) pazupegenerure e glynapa.

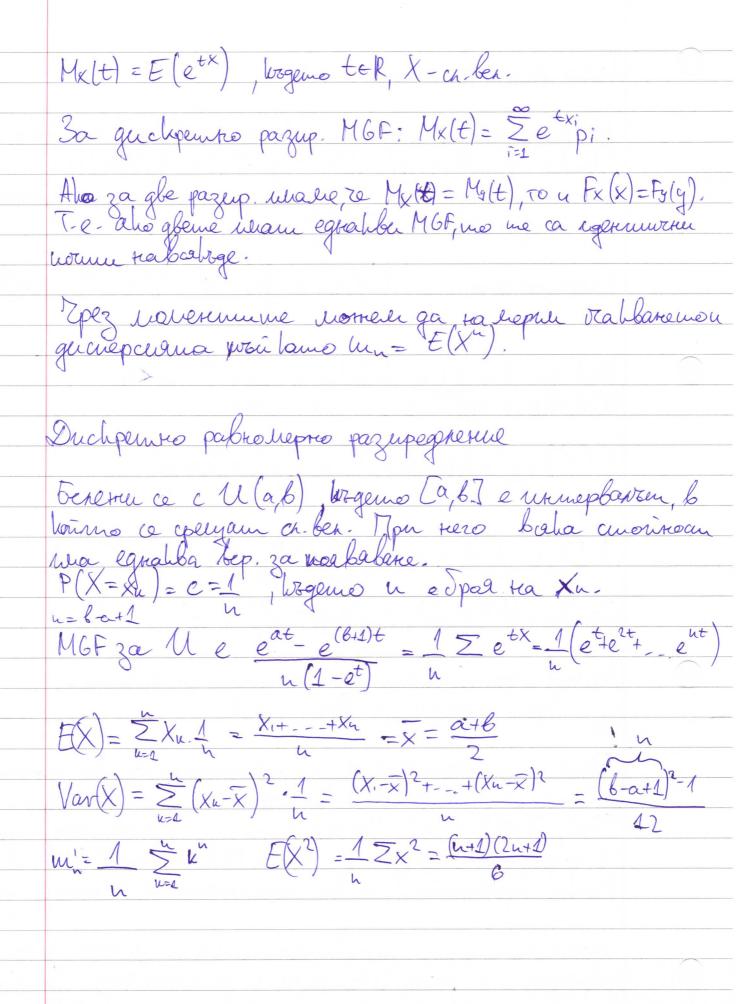
purno u ce Denemu e N(1, T2), boguno p- eram.

a T2 gerchepouluma. To e cure upurno cuparo p. Mobile roume na N ce zagabe e popleyearna. MGFza Ne: M(t) = E(etx) = e ut = 27242 Bruliaulu M'(0) = (e ht e = 72t2). (p+ 2. (2t)) =  $=(e^{\circ},e^{\circ}).(\mu+\frac{\Gamma^{2}}{7}.0)=$ A wale M"(0) = (eht. e = T2) T2 + ( p+ T2 t) (eht. e = 2722) pt = 24 = (e°.e°) \(\gamma^2 + \mu (e°.e°) \m = \(\gamma^2 + \mu^2\) Var(X) = M"(0) - (M'(0)) = T2 + \mu^2 - \mu^2 = T2 3a E[X] some ga nonzballe u E[X] = [xfx(x)dx =  $= \frac{1}{\sqrt{2\pi}} \int_{-\infty}^{\infty} x e^{\left(-\frac{x^2}{2}\right)} dx = 0.$  (3a  $E[X^2] = \int_{-\infty}^{\infty} x^2 f_x(x) dx = \int_{-\infty}^{\infty} f_x(x) dx = 1$ VarX = E(X) - (EX) = 1-0=1 EX= Sx(x)dx = Sx+y) JIM · C-XI ok = Sx 1 o or dx + S win e ZIZ dx









	Eunouro pazupegenerue
	Биномичено разир. е бизирако на опиши на бермум.
	Europeromo pazero. La Tazero na orneum na Depregna.  Tra le $(x)$ -
	TO $\int_{X} (x) = p^{x} (1-p)^{4-x}$ , $x = 0,1$ .
	Alo bhecmo I, paznemgahe u onuma (Kezabuchlu) u
P(X=h)	Ho bhecmo 1, paznemgane u omma (kezabuchu) u bep. za yenex ne ce upohena, mo: $= \int x(\mathbf{k}) = \int u \int p^{\mathbf{k}} (1-p)^{\mathbf{k}-\mathbf{k}},  k=0,,u$
	Orebugno Jx(x) 20.
	Mpolepalale $\geq J_{\times}(k) = 1$ : $\sum_{k=0}^{n} \binom{n}{k} \binom{n}{k-p} \binom{n-k}{p} \binom{n-k}{p-1} = \binom{n-k}{p-1} \binom{n-k}{p-1} = \binom{n-k}{p-1} \binom{n-k}{p-1} = \binom{n-k}{p-1} \binom{n-k}{p-1} = \binom{n-k}{p-1} \binom{n-k}{p-1} \binom{n-k}{p-1} = \binom{n-k}{p-1} \binom{n-k}{p-1} \binom{n-k}{p-1} \binom{n-k}{p-1} = \binom{n-k}{p-1} \binom{n-k}{$
	$EX = Zk(u)p^{k}(1-p)^{k-k} = Zk \frac{u!}{k!(u-k)!}p^{k}(1-p)^{k-k} =$
-	$= \mu p \sum_{(k-1)!} \frac{(k-1)!}{(k-1)!(u-k!)} p^{k-1} (1-p)^{k-k} = \mu p \sum_{(k-1)} \frac{(k-1)}{(k-1)} p^{k-1} (1-p)^{(k-1)(k-4)} = \mu p$
	Arajowerio vojurabale EXX-1)=up^2(u-1).  -> Var (X)= EX(X-1)+EX-(EX)2=u(u-1)p2+up-up)2=
	=> $Var(X) = EX(X-1) + EX - (EX)^2 = u(u-1)p^2 + up-up^2 =$ = $u^2p^2 - up^2 + up - up^2 = up - up^2 = up (1-p)$
	(1-p)
	$M_X(t) = \sum_{k=0}^{\infty} tk \begin{pmatrix} u \\ u \end{pmatrix} p \begin{pmatrix} 1 - p \end{pmatrix} u - k = \sum_{k=0}^{\infty} \begin{pmatrix} u \\ u \end{pmatrix} p e^{\frac{t}{2}} k \begin{pmatrix} 1 - p \end{pmatrix} = p e^{\frac{t}{2}} q^{\frac{t}{2}} h$
	$M'(t) = u(1-p+pe^{t})^{u-1}pe^{t} = u.1^{u-1}p = up$ $M''(t) = u(u-1)(1-p+pe^{t})^{u-2}(pe^{t})^{2} + u(1-p+pe^{t})^{u-2}pe^{t}$
	M"(t) = n(u-1) (1-p+pet) (pet) 2+ n (1-p+pet) h-1 pet (1-p+pet) h-2
	$=$ $\frac{1}{2}$
	Double : 8 Fz 1 ) = 03
	$P(X=0) = \binom{6}{0.3} \binom{30}{1-0.3} \binom{6-0}{1-0.3}$
	$P(X=1) = (6, 0.3, (1-0.3)^{6-2})$

Featiempwino pazupegenerue Feoliempurhomo pazup. nome ga ce базира на едно om gle - регупр на X при општи на бергури до шторки успех - регупр. на 9=X-1 за неуспехи до шторки успех (Запосвания от О)  $P(X=k) = (1-p)^{k-1}p$   $P(Y=k) = (1-p)^{k}p$   $Ge_{2}$   $Ge_{3}$ Il upu glama cryras pazentugalie reali upo ipe une MGF za Geon Ge, -> pet um p 1-(1-p)et 1-(1-p)et Geo  $E(X) = \sum_{x} (1-p)p^{x} = p\sum_{x} (1-p)p^{u-1} = p(\frac{2}{q^{2}} - \frac{1}{q})$  $E(X_1) = \sum h p (1-p)^{k-1} = p \sum h (1-p)^{k-1} = 1$   $Var(X_1) = EX^2 - (EX)^2 = 1-p$   $P^2$   $Var(X_0) = 1-p$   $P^2$ Moaconobo pazupegererue X e Moaconobo pazup. ch. ben., also P(X=k)= λk e k=0,1... k! MGF e:  $M_X(t) = e^{-\lambda(t-e^t)} = e^{-\lambda} \sum_{x=0}^{\infty} \frac{(\lambda e^t)^x}{x!} - E(e^{\lambda t})$