AS U8		
1.) (R, B, P) P. Standard normal verte	lung	
ges: P(J-0,1,6]), P(J-1,1;/	$(8L)$, $P(L1, 4; \infty L)$	
$P(J-\infty, 1, 6J) = \Phi_{0,1}(1, 6) = 0,34$	520	
	$1) = 0_{ora}(1,8) - (1-0_{ora}(1,1)) = 0,36407 - (1-0,86433)$	3)
= 0,8284		
$P([1,4;\infty[)=1-P(J-\infty,1,4[)=$	$1 - \phi_{0,1}(1,4) = 1 - 0,91324 = 0,68076$	
s.) P=B(6,0,6)		
ges: P(J-00,2]), P(J1,5[), P(]3,00[)	
P({03}) = (6) 0,6 ° (1-0,6) 6-0 = 0,46 =	$P(33) = 20.0, 6^3.0, 4^3 = 0.27648$	
$P(\{13\}) = (6)0,6(1-0,6)^{6-1} = 6.0,6.$	P(x43) = 15.0,640,42 = 0,3 M04	
P({2}) = 15.0,62.0,4 = 0,13824		
P(1-0,2] = P(303) + P(313) + P(23) = 0,	1732 P(363) = 1.0,6°.0,4° = 0,046656	
$P(11,51) = P(\{23\}) + P(\{3\}) + P(\{4\}) = 0,72$	576	
$P(J3, \infty I) = P(\{4\}) + P(\{5\}) + P(\{6\}) = 0,5$	4432	
() P=P(3,6)		
ges: P(J-00,2]), P(J1,5[), P(J	의료 회원이 되어 모든 그리고 이 공기로 되고 되었어. 모든 아랫 곳이 모든 조심 토를 보여 있다. 그리	
$P(\{0\}) = \frac{3.6^{6} \cdot e^{-3.6}}{0!} \cdot e^{-3.6} = 0,0273237$	P(333) = 0,212469 P(363) = 0,0826081	
$P(\{1\}) = \frac{3.6^{4}}{4!} \cdot e^{-3.6} = 0.0983654$ $P(\{2\}) = \frac{3.6^{2}}{2!} \cdot e^{-3.6} = 0.177058$	P(343)=0,191222	
$ (\{25\}) = 21 \cdot e = 0 /1 + 10 \cdot 8 $	P(553)=0,13768	
P(J-00,2])=P(503)+P(513)+P(523)=0,302	124일 그리트 보다 다리고 이유를 되었다고요?	
$P(J_1, 5E) = P(\{23\} + P(\{3\}) + P(\{4\}) = 0,58074$	1 [] 그리고 [] [] 그리고 [리고] 그리고 []	
$P(J3,\infty C) = P(43) + P(453) + P(463) = 0,4115$	101	

5.) P. Normalintaling with 1-4 of 2-25 Quit $P(I-\infty, TI) - \Phi_{ij}(T) = \Phi_{ij}$	MAS Ü8	0			/,	2	0.5						4-5		
$\begin{split} \mathbb{P}(3, \infty \mathbb{L}) &= 1 + \mathbb{P}(-\infty, 3] = 1 - 0_{0,5}(3) = 1 - 0_{0,1}(\frac{3-4}{5}) = 1 - 0_{0,1}(-0,2) \\ &= 1 - (1 - 0_{0,1}(0,2)) = 0_{0,1}(0,2) = 0,57926 \\ \mathbb{P}(3\times \mathbb{L}\times 763) &= 1 - \mathbb{P}(1-6,6] = 1 - (0_{0,5}(6) - 0_{0,6}(-6)) = 1 - (0_{0,1}(\frac{6-4}{5}) - 0_{0,1}(\frac{6-4}{5})) \\ &= 1 - (0_{0,1}(0,4) - 0_{0,1}(-2)) = 1 - (0_{0,1}(0,4) - 1 - 0_{0,1}(0,4) - 1 + 0_{0,1}(2)) \\ &= 1 - 0_{0,1}(0,4) + 1 - 0_{0,1}(2) = 2 - 0,65542 - 0,34425 = 0,36433 \\ gos: ceR mit \mathbb{P}(1-\infty,c]) = 0,3 \\ 0,3 &= \mathbb{P}(1-\infty,c]) = 0,3 \\ 0,3 &= \mathbb{P}(1-\infty,c]) = 0,3 \\ 0,4 &= 1 - 0_{0,1}(0,4) + 1 - 0_{0,1}(2) = 2 - 0,65542 - 0,34425 = 0,36433 \\ gos: ceR mit \mathbb{P}(1-\infty,c]) = 0,3 \\ 0,5 &= 1 - 0,3047 = 2 - \frac{1}{5} = 1,28 = 2 - 4 - 6,45 = 2 - 10,45 \\ 0.) &= 1 - 0_{0,1}(0,4) + 1 - 0_{0,1}(2) = 1 - 0,3 \\ 0.) &= 1 - 0,304344 \\ 0.) &= 1 - 0,304344 \\ 0.) &= 1 - 0,304344 \\ 0.) &= 1 - 0,304573 \\ 0.) &= 1 - 0,344577 \\ 0.) &= 1 - 0,3445773 \\ 0.) &= 1 - 0,3445773 \\ 0.) &= 1 - 0,3445773 \\ 0.) &= 1 - 0,3445773 \\ 0.) &= 1 - 0,3445773 \\ 0.) &= 1 - 0,3445773 \\ 0.) &= 1 - 0,3445773 \\ 0.) &= 1 - 0,3445773 \\ 0.) &= 1 - 0,3445773 \\ 0.) &= 1 - 0,3445773 \\ 0.) &= 1 - 0,3445773 \\ 0.) &= 1 - 0,3445773 \\ 0.) &= 1 - 0,3445773 \\ 0.) &= 1 - 0,3445773 \\ 0.) &= 1 - 0,3445773 \\ 0.) &= 1 - 0,3445773 \\ 0.) &= 1 - 0,3445773 \\ 0.) &= 1 - 0,3445773 \\ 0.) &= 1 - 0,344773 \\ 0.) &= 1 - 0,344773 \\ 0.) &= 1 - 0,344773 \\ 0.) &= 1 - 0,344773 \\ 0.) &= 1 - 0,344773 \\ 0.) &= 1 - 0,344773 \\ 0.) &= 1 - 0,344773 \\ 0.) &= 1 - 0,344773 \\ 0.) &= 1 - 0,344773 \\ 0.) &= 1 - 0,344773 \\ 0.) &= 1 - 0,344773 \\ 0.) &= 1 - 0,344773 \\ 0.) &= 1 - 0,344773 \\ 0.) &= 1 - 0,344773 \\ 0.$			U	The Park				x : 1,	()>6}.						
$\begin{array}{c} = 1 - \left(1 - \mathcal{Q}_{0,n}(0,2)\right) = \mathcal{Q}_{0,n}(0,2) = 0,57926 \\ \mathbb{P}\left(\{x: x > 6\}\right) = 1 - \mathbb{P}\left(\{-6,6\}\right) = 1 - \left(\mathcal{Q}_{1,5}(6) - \mathcal{Q}_{1,6}(-6)\right) = 1 - \left(\mathcal{Q}_{0,n}(\frac{6+4}{5}) - \mathcal{Q}_{0,n}(\frac{6+4}{5})\right) \\ = 1 - \left(\mathcal{Q}_{0,n}(0,4) - \mathcal{Q}_{0,n}(-2)\right) = 1 - \left(\mathcal{Q}_{0,n}(0,4) + (1 - \mathcal{Q}_{0,n}(2))\right) = 1 - \left(\mathcal{Q}_{0,n}(0,4) - (1 + \mathcal{Q}_{0,n}(2))\right) = 1 - \left(\mathcal{Q}_{0,n}(0,4) + (1 - \mathcal{Q}_{0,n}(2)\right) = 1 - \left(\mathcal{Q}_{0,n}(1,2) + (1 - \mathcal{Q}_{0,n}(2)\right) = 1 - \left(\mathcal{Q}_{0,n}(1,2) + (1 - \mathcal{Q}_{0,n}(2)\right) = 1 - \left(\mathcal{Q}_{0,n}(1,2) + (1 - \mathcal{Q}_{0,n}(2)\right) = $											Charles of	- 1	1-6:	2	
$= 1 + (\partial_{0}, 10, 4) - \partial_{0}, 1(-2)) = 1 - (\partial_{0}, 10, 4) + (1 - \partial_{0}, 12)) = 1 - (\partial_{0}, 10, 4) - 1 + \partial_{0}, 12)$ $= 1 - \partial_{0}, 10, 4) + 1 - \partial_{0}, 12) = 2 - 0,65542 - 0,34725 = 0,36733$ $= 0.36$. W (-1-(1-0	0,, (0	,2))=	Фо,	10,2)=0,	579	26					6-611
go: $C \in \mathbb{R}$ and $P(J-\omega,CJ) = 0,9$ $0,3 = P(J-\omega,CJ) = 0_{46}(c) = 0_{56}(c) = 0_{56}(c$		2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		Part In The			1000								TO ATEC 100 DE
$\begin{array}{c} O, S = P(J \neg \omega, cJ) = Q_{45}(c) = Q_{5,4}(\frac{c-4}{5}) \\ Q_{0,4}(1,2S) = 0,30147 \\ = > \frac{c-4}{5} = 1,2S \iff c-4 = 6,45 \iff c = 10,45 \\ \hline 6.) P = E(2) Exponential varietizing \\ Qes: P(T0,1,1,3J), P(T0,5;\omega L) and certain P(J-\omega,cJ) = \frac{1}{4} 1/\frac{1}{2} 1/\frac{1}{4} \\ P(T0,1,1,3J) = F(1,3) - F(0,1) = 1 - e^{2+1/3} - (1-e^{2+0/3}) = e^{-0/2} - e^{-2/6} = 0,7444457 \\ P(T0,5;\omega L) = 1 - P(J-\omega,0,5J) = 1 - F(0,5) = 1 - (1-e^{2+0/3}) = e^{-1} = 0,367873 \\ \hline . P(T-\omega,cJ) = F(c) = 1 - e^{2+1/3} - (1-e^{2+1/3}) = e^{-1} = 0,367873 \\ \hline . P(T-\omega,cJ) = F(c) = 1 - e^{2+1/3} - (1-e^{2+1/3}) = e^{-1} = 0,367873 \\ \hline . P(T-\omega,cJ) = F(c) = 1 - e^{2+1/3} - (1-e^{2+1/3}) = e^{-1} = 0,367873 \\ \hline . P(T-\omega,cJ) = F(c) = 1 - e^{2+1/3} - (1-e^{2+1/3}) = e^{-1} = 0,367873 \\ \hline . P(T-\omega,cJ) = F(c) = 1 - e^{2+1/3} - (1-e^{2+1/3}) = e^{-1} = 0,367873 \\ \hline . P(T-\omega,cJ) = F(c) = 1 - e^{2+1/3} - (1-e^{2+1/3}) = e^{-1} = 0,367873 \\ \hline . P(T-\omega,cJ) = F(c) = 1 - e^{2+1/3} - (1-e^{2+1/3}) = e^{-1} = 0,367873 \\ \hline . P(T-\omega,cJ) = F(c) = 1 - e^{2+1/3} - (1-e^{2+1/3}) = e^{-1} = 0,367873 \\ \hline . P(T-\omega,cJ) = F(c) = 1 - e^{2+1/3} - (1-e^{2+1/3}) = e^{-1} = 0,367873 \\ \hline . P(T-\omega,cJ) = F(c) = 1 - e^{2+1/3} - (1-e^{2+1/3}) = e^{-1} = 0,367873 \\ \hline . P(T-\omega,cJ) = F(c) = 1 - e^{2+1/3} - (1-e^{2+1/3}) = e^{-1} = 0,367873 \\ \hline . P(T-\omega,cJ) = F(c) = 1 - e^{2+1/3} - (1-e^{2+1/3}) = e^{-1} = 0,367873 \\ \hline . P(T-\omega,cJ) = F(c) = 1 - e^{2+1/3} - (1-e^{2+1/3}) = e^{-1} = 0,367873 \\ \hline . P(T-\omega,cJ) = F(c) = 1 - e^{2+1/3} - (1-e^{2+1/3}) = e^{-1} = 0,367873 \\ \hline . P(T-\omega,cJ) = F(c) = 1 - e^{2+1/3} - (1-e^{2+1/3}) = e^{-1} = 0,367873 \\ \hline . P(T-\omega,cJ) = F(c) = 1 - e^{2+1/3} - (1-e^{2+1/3}) = e^{-1} = 0,367873 \\ \hline . P(T-\omega,cJ) = F(c) = 1 - e^{2+1/3} - (1-e^{2+1/3}) = e^{-1} = 0,367873 \\ \hline . P(T-\omega,cJ) = F(c) = 1 - e^{2+1/3} - (1-e^{2+1/3}) = e^{-1} = 0,367873 \\ \hline . P(T-\omega,cJ) = F(c) = 1 - e^{2+1/3} - (1-e^{2+1/3}) = e^{-1} = 0,367873 \\ \hline . P(T-\omega,cJ) = e^{-1} = 0,$							2-0	,655	42 - 0	,9770	25=1	0,36	133		
6.) $P = E(2)$ Exponential varietizing ges: $P(L0, 1, 1, 3]$, $P(J0, 5; \omega L)$ and $C \in R$ with $P(J-\omega, CJ) = \frac{1}{4} / \frac{1}{2} / \frac{3}{4}$ $P(L0, 1, 1, 3]) = F(1, 3) - F(0, 1) = 1 - e^{2 \cdot 1/3} - (1 - e^{2 \cdot 9/3}) = e^{-0/2} - e^{-2/6} = 0,744457$ $P(J0, 5; \omega L) = 1 - P(J-\omega, 0, 5]) = 1 - F(0, 5) = 1 - (1 - e^{2 \cdot 9/3}) = e^{-1} = 0,367879$ $P(J-\omega, CJ) = F(C) = 1 - e^{2 \cdot C}$ $P(J-\omega, CJ) = F(C) = 1 - e^{2 \cdot$	0,8=P()]-00,	cJ)	= Φ ₄₅	(c)	= Do			/ear-	2 - 4	- 6	1,5	430	= 13	45
$P([0,A:A,3]) = F(A,3) - F(0,A) = A - e^{2AA} - (A - e^{2AA}) = e^{-0.2} - e^{-2A} = 0,744457$ $P([0,5:a]) = A - P([-\infty,0,5]) = A - F(0,5) = A - (A - e^{2AB}) = e^{-1} = 0,367879$ $P([-\infty,c]) = F(c) = A - e^{2A} - e^{-2A} = \frac{1}{4} \implies e^{-2A} = 1$, ,			
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$															
	P(70,5;00)	[]=/	1- P(.]-00,0,	5])=	1-FC	0,5)=	1-1	1-e	2.95)=	= e	1 = 0	7,367	379	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	· P (1-80, c	J)=F	(c)=	Л-е	2.6	a)	1-e €>c	20 =	1 du	=>e	2e =	3 4 => C	€) - = 0,1	-2c=1	2, (3)
·) 1-e-2c=3 = e-2c=h(4)						0)	1-e-	2c = 5	(4)	e-2c	= 1/2	(=)	-2c=	ln (2	
$\Rightarrow c = -\frac{1}{2} \ln(\frac{\pi}{4}) \Leftrightarrow c = 0,693147$.) /	1-e-2	c 3	E>e	-20 =	14	(E) -{	2c=l	(4)	
							=>c	= + 2	hal	4)6	PC	=0,	6931	47	

MAS US 7.) P= T(3,1)... Gamma verteilung ges: Verfeilungsfunktion and IP ([1,2]) $P(x) = \frac{x^3 - 1 \cdot 1^3}{(3)} \cdot e^{-1/x} = \frac{x^2}{(3)^3 \cdot e^{-1/4}} \cdot \frac{1}{e^x}$ S+2.e-t d+ = e-1.+2 +2 Se+1.+ d+=-e-+ +2+2 (+e-+.++ Se-+d+) $= -e^{-t} \cdot t^2 - 2e^{-t} \cdot t - 2e^{-t} = -e^{-t} \cdot (t^2 + 2t + 2)$ $= \lim_{\beta \to \infty} -\frac{2\beta + 2}{e^{\beta}} + 2 = \lim_{\beta \to \infty} -\frac{2}{e^{\beta}} + 2 = 0 + 2 = 2$ $P(x) = \frac{x^2}{2e^x} \qquad F(x) = \int \frac{12}{2e^+} dt$ (1, +2, e-d= 1, (+e+, (+2+2++2)) $\int_{2}^{4} \cdot + 2 \cdot e^{-t} dt = -\frac{1}{2} e^{-x} \cdot (x^{2} + 2x + 2) + \frac{1}{2} \cdot e^{-0} (2) = -\frac{1}{2} \cdot e^{-x} \cdot (x^{2} + 2x + 2) + 1 = F(x)$ $P([1,2]) = F(2) - F(1) = -\frac{1}{2} \cdot e^{-2} (4+4+2) + 1 - (-\frac{1}{2} \cdot e^{-1} (1+2+2) + 1)$ $=-5 \cdot e^{-2} + 1 + \frac{5}{2} \cdot e^{-1} - 1 = 0,243022$