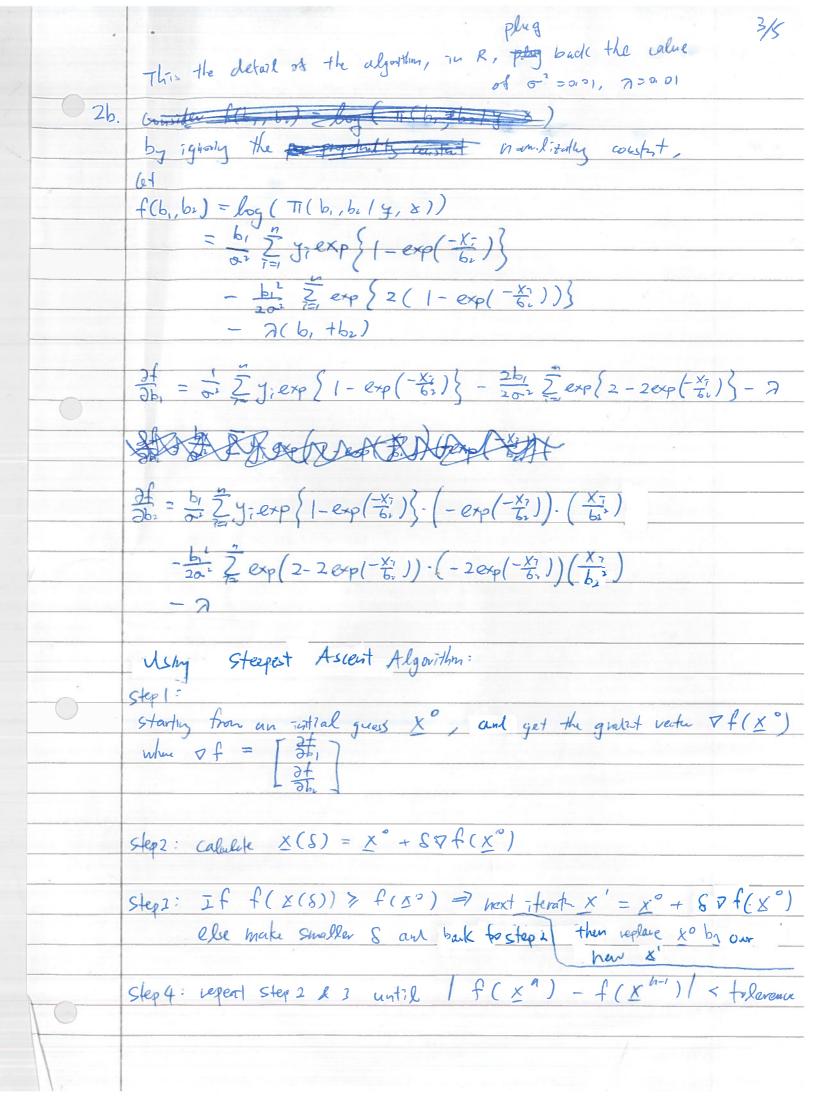
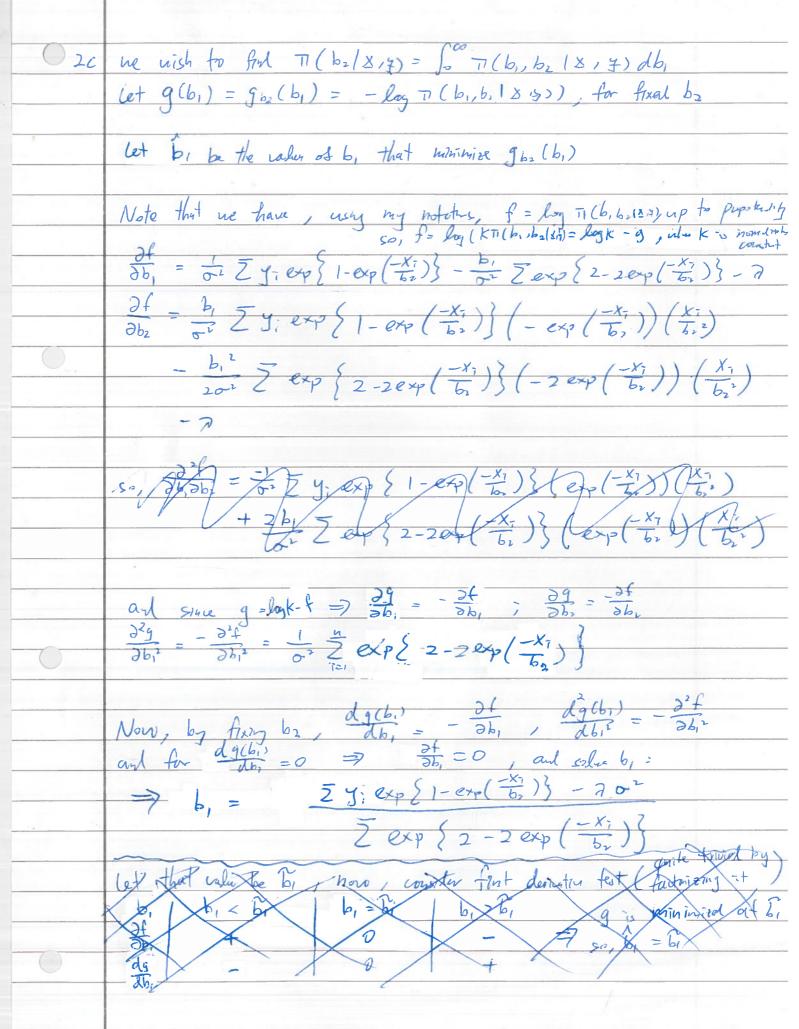
	$f(x = x) = -i \int_{-\infty}^{\infty} \frac{1}{x^2} \int_{-\infty}^{\infty} 1$
10	$f(x;r,R) = \frac{1}{2\pi} \left[1 + \frac{1}{R} (\omega_s x) \right] \times 6 \left[0.12\pi \right], 0 < r < R$
	define Y ~ U(0,27), so pot = + 4: giy) = 27
	Note that g d f having the same support [0,27]
	Aso, $\left \frac{f(x)}{g(x)}\right = \left 1 + \frac{\pi}{R}\cos x\right = 2$, so f/g is bounded in $[0, 2\pi]$
	Now (at $M = \begin{cases} \frac{f(X;r,R)}{g(x)} \end{cases} = \begin{cases} \frac{sup}{g(x)} \end{cases} = \begin{cases} \frac{sup}{g(x)} \end{cases} = \begin{cases} 1 + \frac{r}{R} \cos x \end{cases}$ $= 1 + \frac{r}{R} \text{occurs of } x = 0 \text{ or } 2$
	$= l + \bar{R} , occurs at X = 0 or 2$
	Alde H+ V = 20 mil of 1 hold
	Note that I is our proposed unifor distribute
	Algorithm = Step1: 57mulate Y ~ U (0, 271)
	57mmlate U ~ U(0,1)
	Step 2: calculate the rates mg(Y) and carpone with u
	If $U < \frac{f(Y)}{vg(Y)}$
	then set X=1, the accepted sample of X
	und cetam X
	else, back to step (and repent
0	

- 2a	$b_1, b_2 \sim \exp(\lambda)$, independent, $\beta = 0.01$
	$\pi(b_1,b_2) = \exists \exp(-\exists b_1) \cdot \exists \exp(-\exists b_2)$
	$= \gamma^2 e^{(b_1 + b_2)}$
*	$\propto \exp(-\lambda(b_1+b_2))$
	then given E: ~ N(0,02), 02 = 0.01, 7=1,2,,10, take 1=10
	so y = ~ N(b, exp{1-exp(-x/6,13,00)
	50 , $71(y X,b_1,b_2)$ = $\frac{1}{121}\frac{1}{\sqrt{121}}\exp\left[\frac{-1}{201}\left(y_1-b_1\exp\left(\frac{-x_1}{b_2}\right)\right)^2\right]$
0	$\propto \exp \left[\frac{1}{2a^{2}} \sum_{i=1}^{n} \left[y_{i}^{2} - 2b_{i} y_{i}^{2} \exp \left[1 - \exp \left(\frac{-x_{i}}{b_{i}} \right) \right] \right] + b_{i}^{2} \exp \left[2 \left(1 - \exp \left(-\frac{x_{i}}{b_{i}} \right) \right) \right] \right]$
	$\angle \exp\left[\frac{1}{20^{2}}\left(-2b, \frac{5}{2}y_{1}exp\left\{1-exp\left(\frac{-x_{1}}{6}\right)\right\} + b^{2}, \frac{5}{2}exp\left\{2-2exp\left(\frac{-x_{1}}{6}\right)\right\}\right]$
	Hence, the postern distribute, and put back the value
	7(b,,b,14,8) × T(418,6,,6,). TI(b,,6,)
	$\propto \exp\left[\frac{10}{1006}, \frac{10}{2}, \frac{10}{2}, \exp\left(1 - \exp\left(\frac{-x_i}{6}\right)\right)\right]$
	- 50 b, 2 = exp { 2 - 2 exp (-X7)}
	- 0.01 (6, +62)
	- 0(0) (0, 402)
0	





0 20 Continue: To test if be minimize g , consider $\frac{d^2g(b,)}{db_1^2}\Big|_{b_1=b_1} = \frac{1}{\sigma^2} \frac{1}{2} \exp\left\{2 - 2\exp\left(\frac{-X_1}{b_1}\right)\right\}$ So by 2nd during fest, we know that by minimize g Now, sine we there the Hessen of g at b, = b, name :+ H so, we can apply the family $\pi(b_2|X,y) = \int_0^\infty \exp(-g(b_1)) db_1$ $= e^{-g(\hat{b}_{1})} \int_{0}^{\infty} \exp\left\{-\frac{1}{2}(b_{1} - \hat{b}_{1})^{T} H(b_{1} - \hat{b}_{1})^{2} db_{1}\right\}$ = T(b1, b2 (X, 4)) IH [1- P(0-b1)] = T(b, b, 12, 4) TT [F(b, TH)] (since integral -> N(b, +) pdf) thus plug back the value or =0,01, 70001 至(·) is the of state to Cumulater probability of Startart normal TILB, b2(X.7) - the FULL porturer distribite who the came can be easily compute In R