$I(0)$ (\(\text{log} \tilde{U} + (\text{Cd}(\tilde{U})) = \text{the ith } (\text{L} \tilde{U})
(a) Since $\hat{\mathcal{U}}_{1} \pm C SO(\hat{\mathcal{U}}_{1}) = the ith C.I., C \sim \mathcal{N}(0,1)$ $\hat{\mathcal{U}}_{1} = \frac{20180}{2} = 75 \qquad \hat{\mathcal{U}}_{2} = \frac{68+72}{2} = 70 \qquad \hat{\mathcal{U}}_{3} = \frac{64+70}{2} = 67$
$Cd(\mathcal{T}) = \frac{5}{2} \qquad Cd(\mathcal{T}) - \frac{2}{2} \qquad Cd(\mathcal{T}) = \frac{1}{2}$
Sol(\mathcal{U}_1) = $\frac{5}{1.96}$ sol(\mathcal{U}_2) = $\frac{2}{1.96}$ sol(\mathcal{U}_3) = $\frac{1}{1.96}$ Since each section has the same number of students
$W_1 = W_2 = W_3 = \frac{1}{3}$
$\widehat{U} = V\widehat{U} + V\widehat{U} + V\widehat{U} = 70.67$
$\frac{\mathcal{M} - \mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4}{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4} = \frac{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4}{\mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4} = \frac{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4}{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4} = \frac{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4}{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4} = \frac{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4}{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4} = \frac{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4}{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4} = \frac{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4}{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4} = \frac{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4}{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4} = \frac{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4}{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4} = \frac{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4}{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4} = \frac{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4}{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4} = \frac{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4}{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4} = \frac{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4}{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4} = \frac{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4}{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4} = \frac{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4}{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4} = \frac{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4}{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4} = \frac{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4}{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4} = \frac{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4}{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4} = \frac{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4}{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4} = \frac{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4}{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4} = \frac{\mathcal{M}_1 + \mathcal{M}_2 + \mathcal{M}_3 + \mathcal{M}_4 + \mathcal{M}_4$
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
$\hat{\mu} = W, \hat{\mu}_1 + W, \hat{\mu}_2 + W_3 \hat{\mu}_3 = 70.67$ $Var(\hat{\mu}) = \frac{1}{9} \sum_{i=1}^{2} Var(\hat{\mu}_i) = 1.099$ $A 95% C.T. is \hat{\mu} \pm C Var(\hat{\mu}) = C \sim N(9.1) = 70.67 \pm 1.96 \int_{-1.099}^{1.099} C = 1.099$
= (68.612, 72.721)
$(b) \ \mathcal{N}_{j} = \frac{\mathcal{N} \ \mathcal{O}_{j} \ \mathcal{W}_{j}}{\sum_{j=r}^{3} \mathcal{O}_{j} \ \mathcal{W}_{j}}$
$\sum_{j=1}^{\infty} O_j W_j$
Since $w_1 = w_2 = w_3 = \frac{7}{3}$
$\sigma_{1} W_{1} = 0.85$
$O_2 W_2 = 0.34$
$0_{3} w_{2} = 0.51$
Σο; w=1.7
$\frac{3}{2} \sigma_j w_j = 1.7$ Hence $\frac{n_1}{n} = 0.5$