Name: S.G.D.R. Weerasingha   Index No: 4103

01)

a) Group = Men

Body Fat Percentage
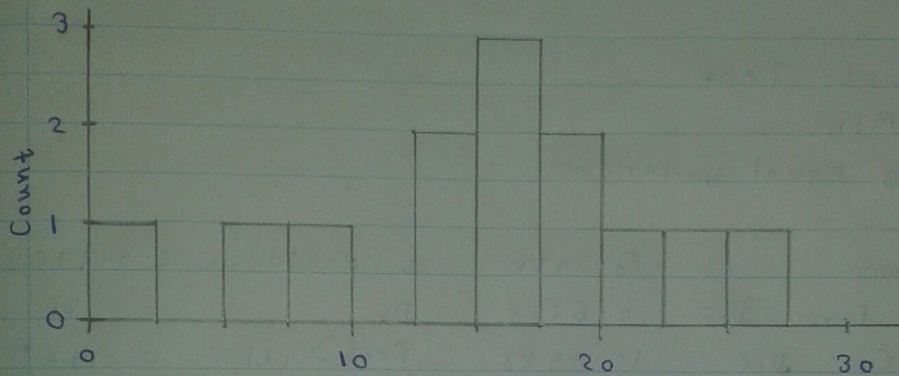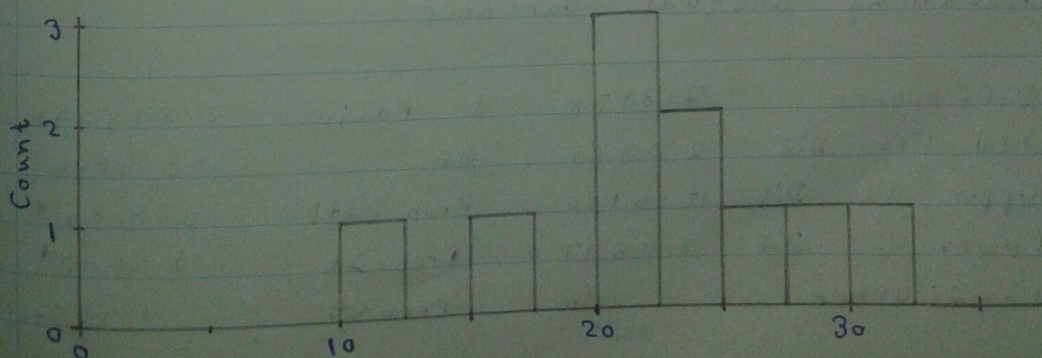

Summary Statistics

Mean	14.95
Standerd Deviation	6.84
Standerd Error Mean	1.90
Upper 95% Mean	19.08
Lower 95% Mean	10.81
N	13.00

Group = Women

Body Fat Percentage

Summary Statistics

Mean	22.29
Standerd Deviation	5.32
Standerd Error Mean	1.68
Upper 95% Mean	26.10
Lower 95% Mean	18.48
N	10.00

b) Pooled t Test

Women - Men

Assuming equal variances

Difference	7.3438	t Ratio	2.79996
Standerd Error Dif	2.6228	DF	21
Upper CL Dif	12.7983	Prob > |t|	0.0107 *
Lower CL Dif	1.8894	Prob > t	0.0054 *
Confidence	0.95	Prob < t	0.9946
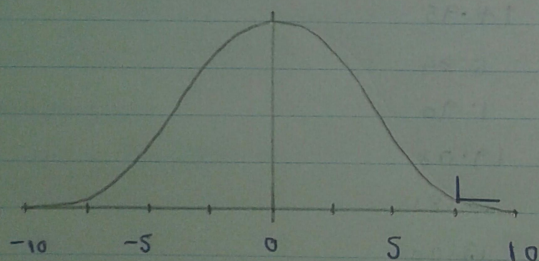
t Test

Women - Men

Assuming unequal variance

Difference	7.3438	t Ratio	2.895794
Std Err Dif	2.5360	DF	20.9888
Upper CL Dif	12.6180	Prob > |t|	0.0086 *
Lower CL Dif	2.0697	Prob > t	0.0043 *
Confidence	0.95	Prob < t	0.9957

-10   -5   0   5   10
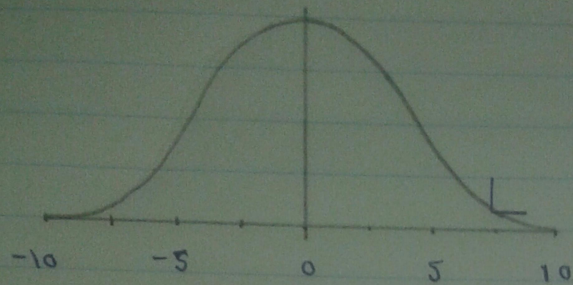
Our null hypothesis is that the mean body fat for men and women is equal. Our alternative hypothesis is that the mean body fat is not equal. The one-sided tests are for one-sided alternative hypotheses- for example, for a null hypothesis that mean body fat for men is less than that for women. We can reject the hypothesis of equal mean body fat for the two groups and conclude that we have evidence body fat differs in the population between men and women.