

# Data Analysis Worksheets

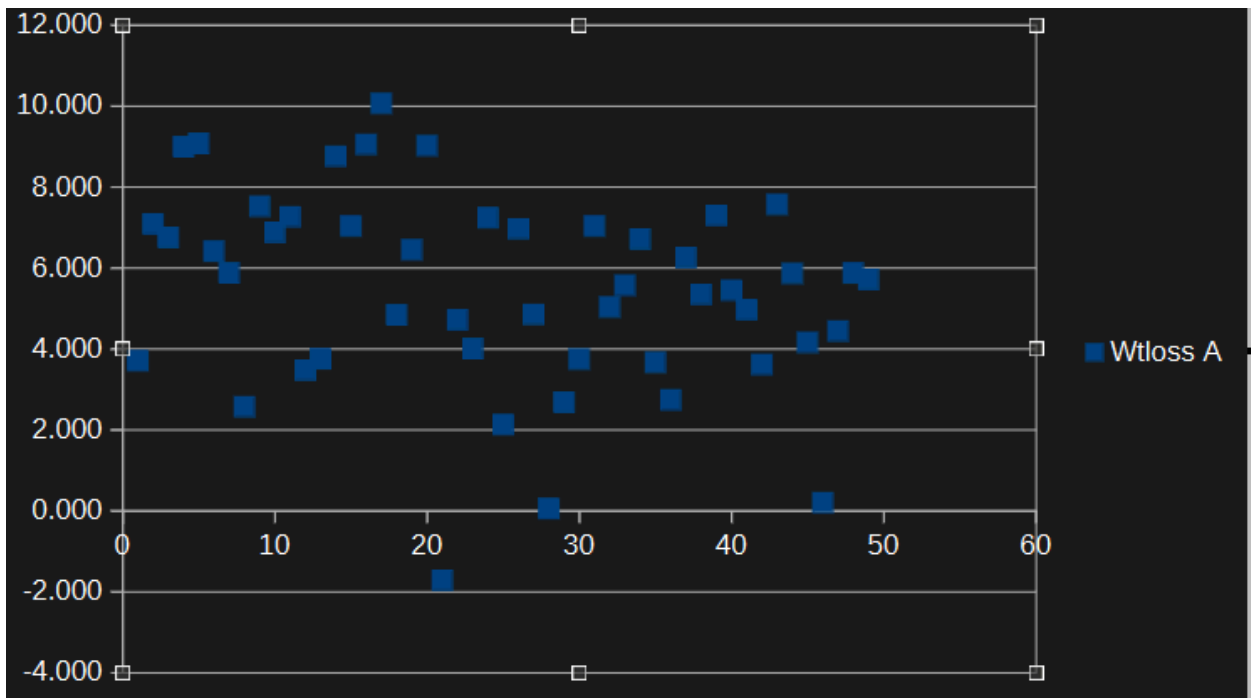
## Workbook 8.1B

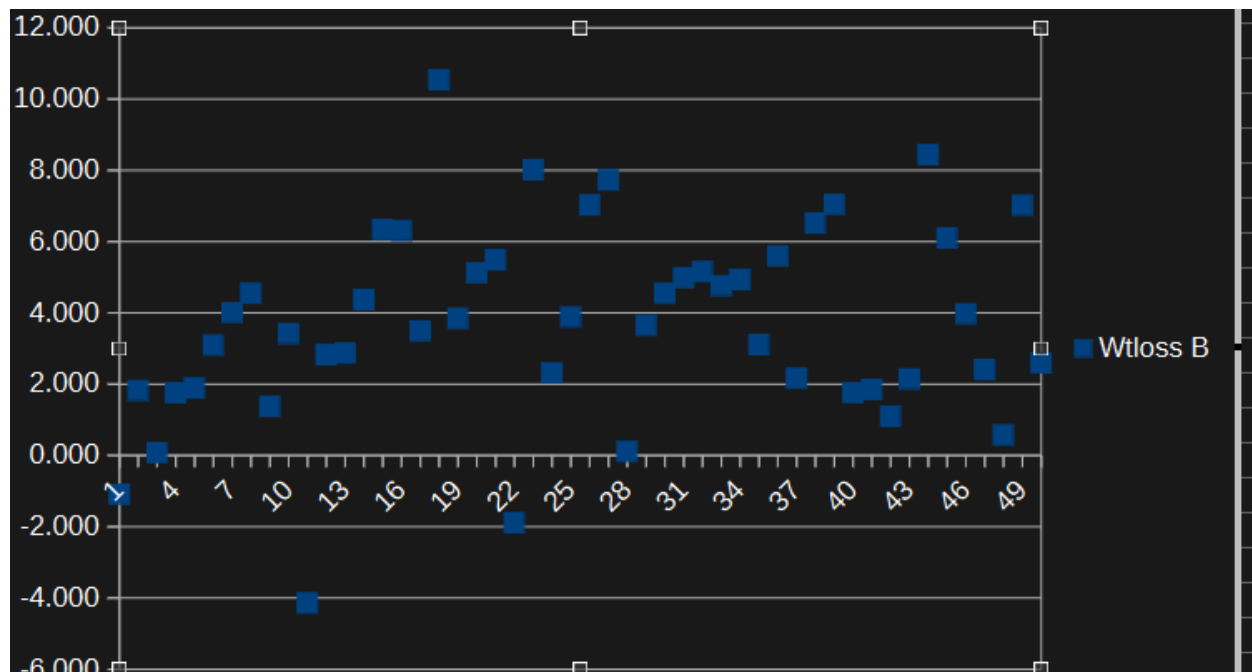
### Relevant Assignment Details(Taken directly from 7 Data Annex.docx):

“ These data relate to the weight losses achieved by two separate samples of 50 human subjects, each of whom undertook one of two different weight reducing diets (A or B).

Variable	Description
Diet	The diet undertaken (A or B)
Wtloss	The individual’s weight loss (in kg) following a fixed period on the relevant diet

Note that a *negative* value of Wtloss indicates that the individual’s weight *increased* over the study period.”





#### Prefilled Values:

Diet A	n	50
	Mean	5.341
	SD	2.536

#### Calculated Values:

Diet B	n	50
	Mean	3.710
	SD	2.77

**Null Hypothesis (H0):** There is no difference in the mean weight loss between Diet A and Diet B.

**Alternative Hypothesis (H1):** There is a difference in the mean weight loss between Diet A and Diet B.

$t = 3.0709$

$df = 98$

**Two-tailed P value:** 0.0028

Based on this result with the two tailed P value being lower than the alpha ( $0.0028 < 0.05$ ), I would reject the null hypothesis as the value is not significant enough.

## **Workbook 8.2B**

### **Provided Values:**

<b>Diet A</b>	<b>n</b>	50
	<b>Mean</b>	5.341
	<b>SD</b>	2.536
	<b>Median</b>	5.642
	<b>Q1</b>	3.748
	<b>Q3</b>	7.033
	<b>IQR</b>	3.285

### **Calculated Values:**

<b>Diet B</b>	<b>n</b>	50
	<b>Mean</b>	3.710
	<b>SD</b>	2.769
	<b>Median</b>	3.745
	<b>Q1</b>	1.953
	<b>Q3</b>	5.404
	<b>IQR</b>	3.451

## **Workbook 8.3D:**

**Frequencies**

	<b>Area 1</b>	<b>Area 2</b>
<b>A</b>	11	19
<b>B</b>	17	30
<b>Other</b>	42	41
<b>Total</b>	<b>70</b>	<b>90</b>

**Percentages**

	<b>Area 1</b>	<b>Area 2</b>
<b>A</b>	15.7	21.11111111111111
<b>B</b>	24.3	33.3
<b>Other</b>	60.0	45.6
<b>Total</b>	<b>100</b>	<b>100</b>