### Week 1 - Assignment 1

#### Question 1

**Table 1: Data Table**

<table>
<thead>
<tr>
<th>Sample ID</th>
<th>Measurement 1</th>
<th>Measurement 2</th>
<th>Measurement 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>12</td>
<td>14</td>
<td>16</td>
</tr>
<tr>
<td>002</td>
<td>13</td>
<td>15</td>
<td>17</td>
</tr>
<tr>
<td>003</td>
<td>14</td>
<td>16</td>
<td>18</td>
</tr>
</tbody>
</table>

**Question:**

1. How does the data in Table 1 look for sample IDs 001, 002, and 003?

2. What complications arise when the data is analyzed for differences or trends?

3. How does the data support your hypothesis or conclusion?

**Answer:**

1. The data shows a consistent increase in measurements across all samples.

2. There is a significant variation in the data, which could indicate a need for further analysis.

3. The data supports the hypothesis that there is a linear relationship between sample ID and measurement values.

#### Question 2

**Diagram 2: Graphical Representation**

**Question:**

1. Describe the trend observed in the diagram.

2. What conclusions can be drawn from the graph?

3. How does the data support the trend observed in the diagram?

**Answer:**

1. The trend observed in the diagram shows a positive correlation between the variables.

2. The graph suggests that as one variable increases, the other variable also increases.

3. The data supports this trend as the line of best fit is consistently above the y-axis, indicating a positive correlation.