

**FIRST DIFFERENCE PRACTICE SHEET**

**Table 1**

**(10 marks)**

Recall:

$$FD = \frac{y_2 - y_1}{x_2 - x_1}$$

Prove whether or not the data within the following tables of values are linear or not using First Difference Calculations. You may use the online First Difference Reference Sheet. **Show your work below.**

<b>X</b>	<b>Y</b>	<b>First Difference</b>
0	4	
2	8	
4	12	
6	16	

First FD Calculation	Second FD Calculation
Third FD Calculation	Fourth FD Calculation

The relationship between x and y is \_\_\_\_\_ .

**Table 2**

**(10 marks)**

Recall:

$$FD = \frac{y_2 - y_1}{x_2 - x_1}$$

Prove whether or not the data within the following tables of values are linear or not using First Difference Calculations. You may use the online First Difference Reference Sheet. **Show your work below.**

X	Y	First Difference
0	12	
5	20	
10	28	
15	36	

First FD Calculation	Second FD Calculation
Third FD Calculation	Fourth FD Calculation

The relationship between x and y is \_\_\_\_\_ .

**Table 3**

**(10 marks)**

Recall:

$$FD = \frac{y_2 - y_1}{x_2 - x_1}$$

Prove whether or not the data within the following tables of values are linear or not using First Difference Calculations. You may use the online First Difference Reference Sheet. **Show your work below.**

X	Y	First Difference
0	3	
7	6	
14	12	
21	24	

First FD Calculation	Second FD Calculation
Third FD Calculation	Fourth FD Calculation

The relationship between x and y is \_\_\_\_\_ .

**Table 4**

**(10 marks)**

Recall:

$$FD = \frac{y_2 - y_1}{x_2 - x_1}$$

Prove whether or not the data within the following tables of values are linear or not using First Difference Calculations. You may use the online First Difference Reference Sheet. **Show your work below.**

X	Y	First Difference
0	-3	
3	6	
5	12	
10	27	

First FD Calculation	Second FD Calculation
Third FD Calculation	Fourth FD Calculation

The relationship between x and y is \_\_\_\_\_ .