Function Rules Note-taker Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Part 1: Block Patterns(NLVM) – Table/Graph/Algebraic Rule for a Function*

 Activity 1:

 Fill in the table Create a scatter plot Write a function rule

|  |  |
| --- | --- |
| x | y |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
|  |  |

 How do you know it is correct?

 Activity

Activity 2:

 Fill in the table Create a scatter plot Write a function rule



|  |  |
| --- | --- |
| x | y |
| 1 |  |
| 2 |  |
| 3 |  |
| 4 |  |
| 5 |  |
|  |  |

 How do you know it is correct?

*Part 2: Algebraic Rules for Functions*

|  |  |
| --- | --- |
| I noticed… | I noticed… |
| I wonder… | I wonder… |
| Summary of writing an algebraic rule/ Things I need to know |

Linear Functions (arithmetic patterns)

 Algebraically

Numerically

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| X | -2 | -1 | 0 | 1 | 2 | 3 | 4 |
| f(x) | 9 | 7 | 5 | 3 | 1 | -1 | -3 |

Graphically

Exponential Functions (geometric patterns)

|  |  |
| --- | --- |
| I noticed… | I noticed… |
| I wonder… | I wonder… |
| Summary of writing an algebraic rule/ Things I need to know |

 Algebraically

Numerically

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| X | -2 | -1 | 0 | 1 | 2 | 3 | 4 |
| f(x) | 4/9 | 4/3 | 4 | 12 | 36 | 144 | 324 |

Graphically

Quadratics Functions

|  |  |
| --- | --- |
| I noticed… | I noticed… |
| I wonder… | I wonder… |
| Summary of things I need to know |

 Algebraically

Numerically

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| X | 0 | 1 | 2 | 3 | 4 | 5 |
| f(x) | 3 | 4 | 7 | 12 | 19 | 28 |
|  |  |  |  |  |  |  |

Graphically