**What are Expressions?**  Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per \_\_\_\_\_\_

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Expression X

|  |  |
| --- | --- |
| x-value | answer |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

Table What is the pattern? | Expression 2x

|  |  |
| --- | --- |
| x-value | result |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

What is the pattern? | Expression 2x+5

|  |  |
| --- | --- |
| x-value | Expression value |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

What is the pattern? |
| Expression -X

|  |  |
| --- | --- |
| Input | Output |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

 | Expression -2X + 5

|  |  |
| --- | --- |
| Input | Output |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

 | Expression x2

|  |  |
| --- | --- |
| x-value | output |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

 |
| What is the Pattern?  |  |  |
| In your own words what are expressions? Why do we use a table of values?  |

Use a graphing calculator.

**Graphical Representation**  Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Per \_\_\_\_\_\_

Note: Set calculator ZOOM to ZFrac1/2.

|  |  |  |
| --- | --- | --- |
| Expression X Sketch the Graph Use the Trace key to compare the values to the table of values in pg 1. What do you notice?  | Expression 2xSketch the Graph Use the Trace key to compare the values to the table of values in pg 1. What do you notice?  | Expression 2x+5 Sketch the Graph Use the Trace key to compare the values to the table of values in pg 1. What do you notice?  |
| Expression -X Sketch the Graph Use the Trace key to compare the values to the table of values in pg 1. What do you notice?  | Expression -2X + 5Sketch the Graph Use the Trace key to compare the values to the table of values in pg 1. What do you notice?  | Expression x2Sketch the Graph Use the Trace key to compare the values to the table of values in pg 1. What do you notice?  |
| In your own words what is the relationship between the table of values and the corresponding graphs?  |