**Multiple Representations and Key Features of Linear Functions**

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Linear functions \_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_ at a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ rate. Their graphs make a \_\_\_\_\_\_\_\_\_\_\_\_\_ line. Explicit rules can be written in the form \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, where the variable \_\_\_\_\_\_\_\_ represents the slope and the variable \_\_\_\_\_\_\_\_ represents the y-intercept. Recursive rules can be written in the form \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, where the variable \_\_\_\_\_\_ represents the slope, and the variable \_\_\_\_\_\_\_\_\_\_represents the y-intercept.

We can use tables, graphs, symbols, and words to represent functions.

Example

1. Jane is participating in a fundraiser where she raises money for a good cause by walking. Her uncle told her that he would donate $20 for her participation in the walk. Her mother told her that she would donate $0.50 for every minute that Jane walked. Represent the function relating of the amount of time Jane walks to the amount of money that Jane raises by using a table, graph, symbols, and words.
2. How do you find the slope of a linear function when given a…
   1. table
   2. graph
   3. “y=” equation
   4. NOW NEXT rule
3. How do you find the y-intercept of a linear function when given a …
   1. table
   2. graph
   3. “y=” equation
   4. NOW NEXT rule

Independent Practice

1. A local plumber charges a flat rate of $50 and then an addition charge of $20 per hour of work. Represent the function relating of the amount of time the plumber works to the amount of money the plumber earns by using a table, graph, symbols, and words.

Linear Function