## Linear Functions



## Across

3. the set of all possible output values for a function
4. a number that cannot be turned into a fraction 10. a variable that is determined by the value of the independent variable
5. the beginning output value in a sequence; often the output of a function when the input is 0
6. a set of numbers that are acted on by a function
7. the ratio of change in $y$ to the change in $x$ between two points in a relationship
8. the set of all non-negative values that can be written as fractions with a denominator of 1
9. the point where the graph intersects the $y$-axis
10. a unique way of writing a function to clearly indicate the output, $\mathrm{f}(\mathrm{x})$, based on the value of the input, x.
Down
11. a set of numbers that are determined by how a function acts on the inputs
12. a general formula for representing a linear relationship in terms of the values for slope and y -intercept. $\mathrm{y}=\mathrm{mx}+\mathrm{b}$
13. the set of all numbers that can be written as fractions
14. a variable whose change is not affected by any other variable in the relationship
15. a relationship where every input has a single output and there is a constant rate of change.
16. a general formula representing a linear relationship in terms of the values for the slope and any point the in the relationship. $y-y 1=m(x-x 1)$

## Word Bank

| independent variable | output | real numbers |
| :--- | :--- | :--- |
| recursive function | input | domain |
| integers | slope-intercept form | y-intercept |
| dependent variable | linear function | slope |

point-slope form
real numbers domain y-intercept slope
initial value
vertical line test
irrational
function notation
function
rational numbers output
whole numbers

