## TRS 92: Introduction to Functions

Read Section 3.6 p. 296-297 in your textbook.

## Thinking Back

1. Review from Section 3.1.

a. Label each of the quadrants and the origin on the grid.
b. In which quadrant(s) is the $x$-coordinate positive and the $y$-coordinate negative? $\qquad$
c. In which quadrant(s) are both coordinates negative? $\qquad$
2. What is an integer? (look it up in your text if you don't know)
3. Give three examples of numbers that are not integers (called non-integers).
4. Read the about the vertical line test on p. 301 (Section 3.6) of your textbook and review Example 5 on p. 302. Explain how the vertical line test relates to the definition of a function.
5. Make a table of values that is a function with $x$ as the independent variable.

| $\boldsymbol{x}$ | $\boldsymbol{y}$ |
| :---: | :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

6. Make a table of values that is not a function with $x$ as the independent variable.

| $\boldsymbol{x}$ | $\boldsymbol{y}$ |
| :---: | :---: |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |


9. Refer back to \#5 in the Day 9 Activity, Writing Expressions.
a. Define the variables for the situation described in this problem:

Independent:
Dependent:
b. Write an equation that represents the life expectancy of non-white males living in the US.
c. Use the equation to complete a table of values with at least 5 ordered pairs. At least two of your inputs must be non-integers. Label each column with the variable.

|  |  |
| :--- | :--- |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |

d. Graph the function. Label axes and scales.

e. Give examples of two ordered pairs that are not solutions to this equation.
10. Define the variables for each situation given. (Just define the variables, don't answer the questions.)
a. Lisa is paid $\$ 9$ per hour. What is her total pay?

Independent:
Dependent:
b. The road crew can pave $1 / 4$ mile every 2 hours. How many miles do they pave?

Independent:
Dependent:
c. The water company charges its residential customers a flat fee of $\$ 45$ plus 3 cents per gallon consumed. What is the total bill?

Independent:
Dependent:

