**Q1** On page 1, drag variables to determine which ones are related.   
An *independent variable* is a variable you can drag.  
A *dependent variable* is one that moves only when you drag its independent variable.   
In this table list the variables, describe their relative speed and direction, and describe any *fixed points* (where the two variables come together).

|  |  |  |
| --- | --- | --- |
| **Independent Variable** | **Dependent Variable** | **Description of Relation** |
| **→** | | **Speed:**  **Direction:**  **Fixed Points:** |
| **→** | | **Speed:**  **Direction:**  **Fixed Points:** |
| **→** | | **Speed:**  **Direction:**  **Fixed Points:** |
| **→** | | **Speed:**  **Direction:**  **Fixed Points:** |
| **→** | | **Speed:**  **Direction:**  **Fixed Points:** |

**Q2** On page 2, drag the independent variables. How do *x'* and *y'* behave?

**Q3** On page 3, drag the independent variables. How do *b'* and *a'* behave?

**Q4** Each page from 4 through 11 shows two relations. One is a function and one is a non-function. For each page, write your observations and questions.

|  |  |  |  |
| --- | --- | --- | --- |
| **Page** | **Function** | **Non-function** | **Observations and Questions** |
| **5** |  |  |  |
| **6** |  |  |  |
| **7** |  |  |  |
| **8** |  |  |  |
| **9** |  |  |  |
| **10** |  |  |  |
| **11** |  |  |  |
| **12** |  |  |  |

**Q5** Based on the examples and non-examples of functions on pages 3 through 12, write a definition of a function in your own words. In your definition, use the terms “independent variable” and “dependent variable” rather than “independent point” and “dependent point.” Use complete sentences for your definition