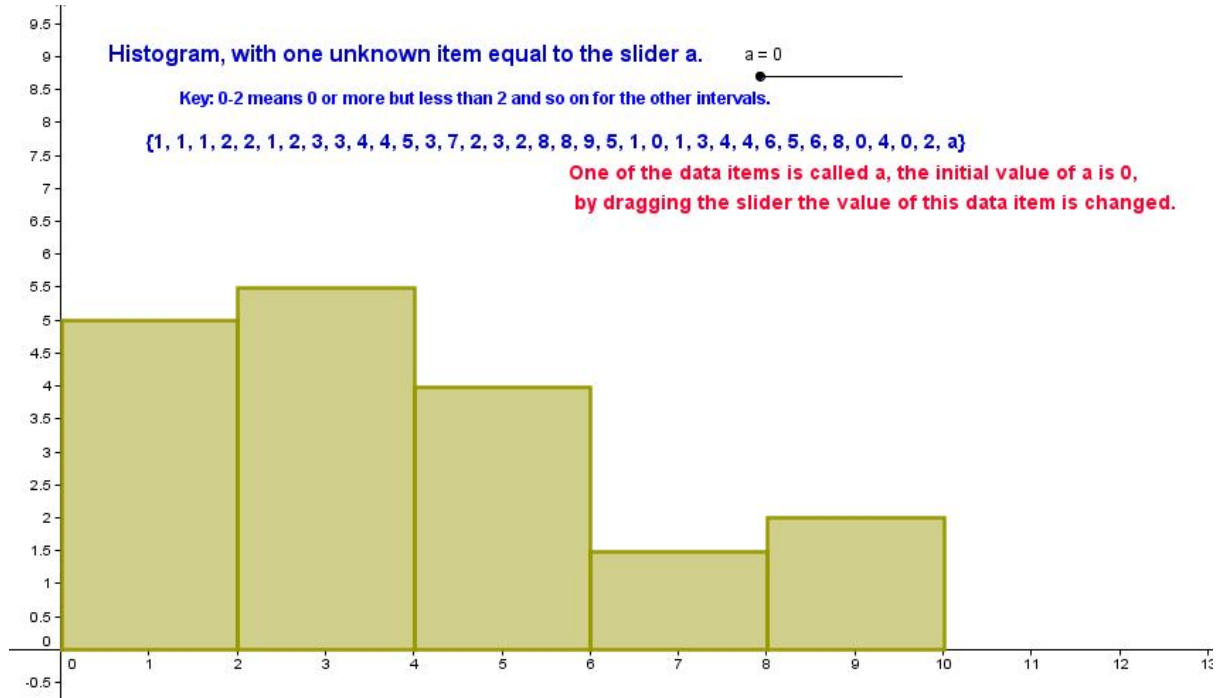## Student Activity: To investigate the effect of changing one data item in a histogram.

Use in connection with the Interactive file "Histogram 2" on the Student's CD.

1. How many class intervals are in the histogram in the interactive file?

   _____

2. Using the given key, what values can be placed in the class interval 4-6?

   _____

3. What property of each rectangle represents frequency?

   _____

4. Using the interactive file as it was when first opened and given that there are 10 items in the class interval 0-2, complete the table?

Class Interval	Frequency	Reason
0-2		
2-4		
4-6		
6-8		
8-10		

5. Using your figures in Question 4, what is the total of all the frequencies. Check your answer using the interactive file.

_____

_____

6. Can this histogram represent any data greater than or equal to 10? Explain.

_____

7. The frequency of the data items can be varied with the slider a,

   a. Move the slider from 0 to 2 and complete the table:

The slider a equals 2	
Class Interval	Frequency
0-2	
2-4	
4-6	
6-8	
8-10	

How does this differ from the original table in question 4 of this student activity?

_____

   b. Move the slider to 6.5 and complete the corresponding table, then move the slider to 8.5 and complete the corresponding table.

Slider equals 6.5	
Class Interval	Frequency
0-2	
2-4	
4-6	
6-8	
8-10	

Slider equals 8.5	
Class Interval	Frequency
0-2	
2-4	
4-6	
6-8	
8-10	

What causes the change in the two tables in part b. of this question?

_____

8. Give possible labels for the x axis that this histogram could represent. Note histograms are used for continuous data.

    _____

    _____

    _____

9. Reset the slider in the interactive file. If the boundaries of the class interval remained the same, but the frequency doubled in each interval, complete the table and draw the corresponding histogram.

Class Interval	Frequency
0-2	
2-4	
4-6	
6-8	
8-10	