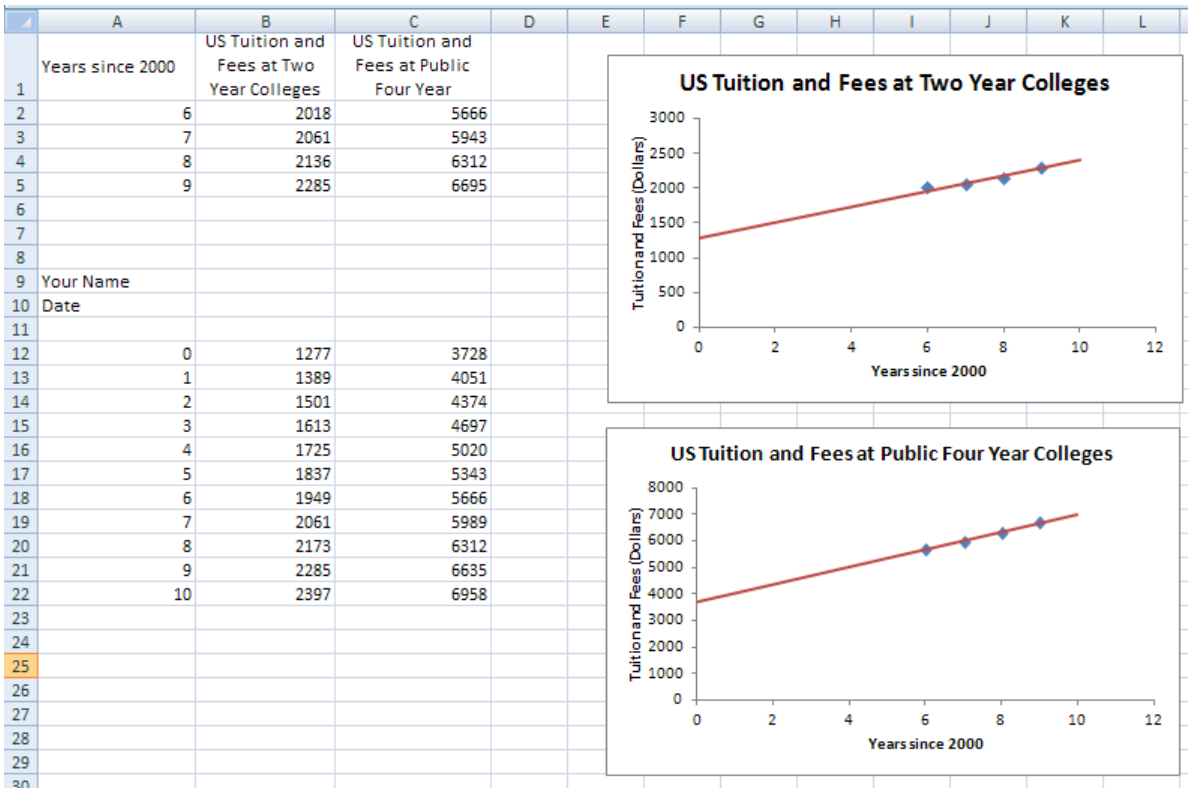
In the last technology assignment, you found two linear functions that modeled scatter plots. You should have an Excel worksheet similar to the one below.

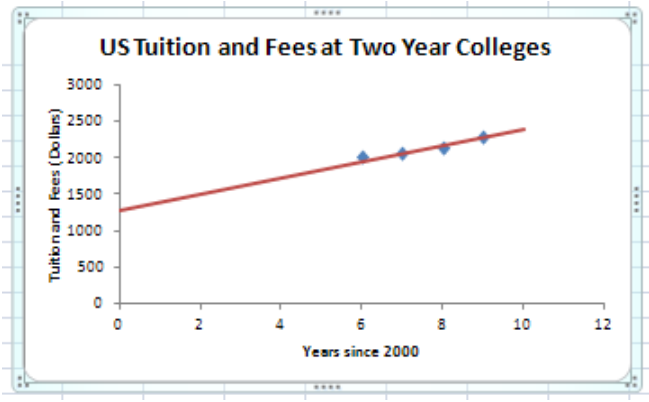
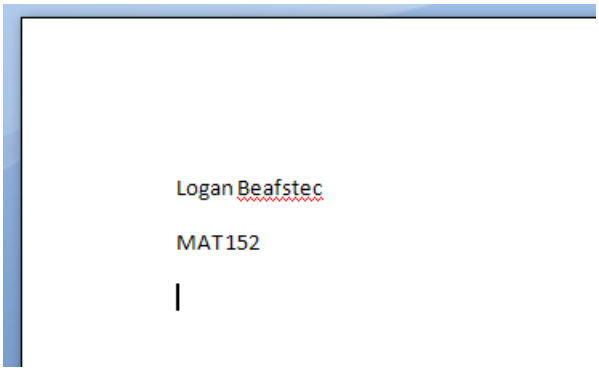


	A	B	C
1	Years since 2000	US Tuition and Fees at Two Year Colleges	US Tuition and Fees at Public Four Year
2	6	2018	5666
3	7	2061	5943
4	8	2136	6312
5	9	2285	6695
6			
7			
8			
9	Your Name		
10	Date		
11			
12	0	1277	3728
13	1	1389	4051
14	2	1501	4374
15	3	1613	4697
16	4	1725	5020
17	5	1837	5343
18	6	1949	5666
19	7	2061	5989
20	8	2173	6312
21	9	2285	6635
22	10	2397	6958

Your scatter plots and functions should look different since you are using the data from the state you are assigned. One graph should be for tuition and fees for two year colleges in the state you are assigned and the other for tuition and fees at public or private four year colleges in the same state.

In this technology assignment, we will copy the graphs from the Excel worksheet to a Word document and add the equations of the linear functions. To add the equations, you will use the equation editor in Word.

Paste the Graph into a Word Document

1. Open the Excel file containing your graphs. Click on the outside edge of your two-year college graph to select it.	
2. Click on the Home tab in Excel. Select Copy to put the graph on the clipboard.	
3. Open Word. In a new document, type your name and class to identify the document. Make sure you use the Enter key on your keyboard to position the insertion point below this text. 4. Click on the  button in the upper left of the window. Select Save As and save the Word document.	

5. In Word, click on the Home tab and then select Paste. This will paste the Excel graph at the insertion point in the Word document.

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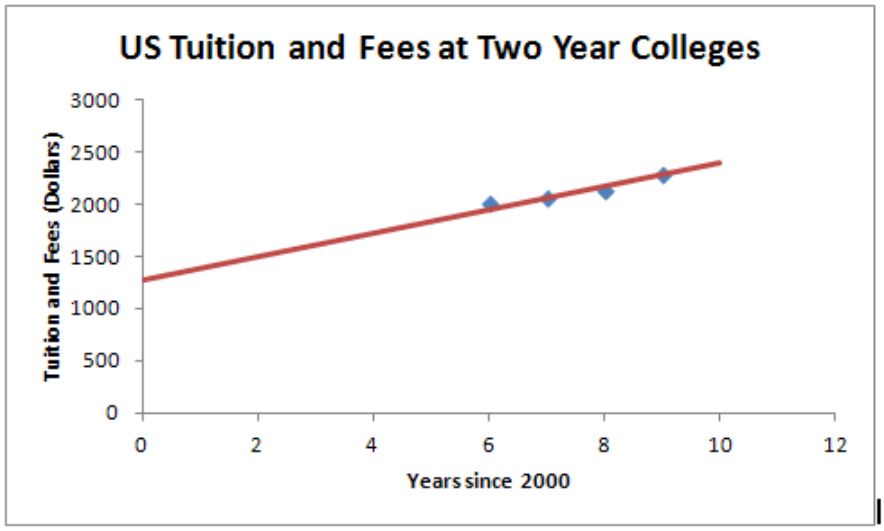


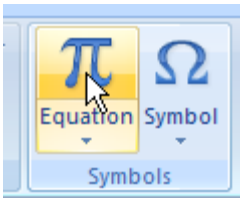
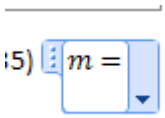
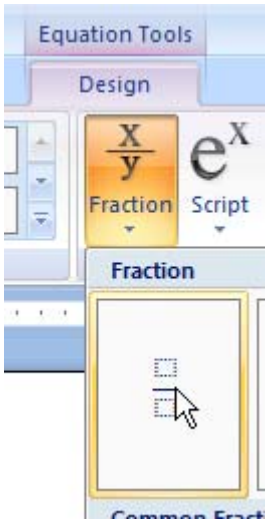
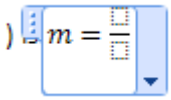
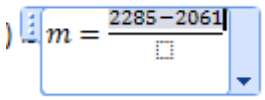
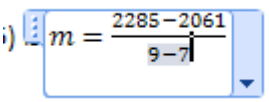
Document Your Work in Word 2007 or 2010 Using the Equation Editor

Under the graph, we will type some explanatory text for the line in the graph. We can use the equation editor in Word to type the equations.

6. Press Enter to position the insertion point below the graph. Type the text you see below using the two ordered pairs you used (not the ordered pairs in the picture) to create the line on the graph.

Years since 2000

The slope of the line passing through the points (7, 2061) and (9, 2285) is

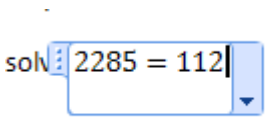
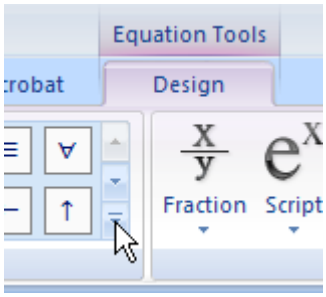
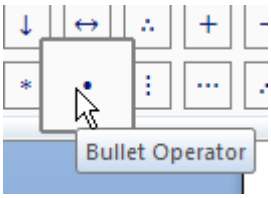
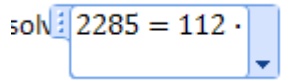
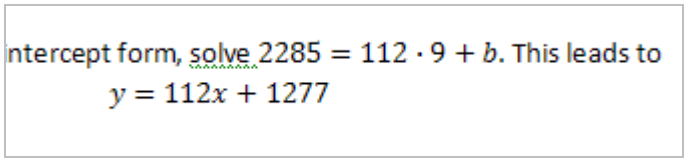
7. The insertion point should now be after the word "is". If it is not, click in the document to place it there. 8. Click on the Insert tab. On the far right, you should see the Symbols panel. Press the Equation button.	
9. An equation box will appear within the sentence you were typing. An equation within a sentence is an inline equation.	
10. We'll type the equation for finding the slope in this box. Using the keyboard, type m = .	
11. The formula for slope requires us to put a fraction in the equation. On the Design tab under Equation Tools, select the Fraction button. This will open a box with several options. Choose the fraction in the upper left.	
12. A fraction will be inserted after the equal sign. The insertion point is now located after the fraction. Click on the numerator of the fraction so that you can type the difference between the y-values on top.	
13. Type in the difference of the y-values. Remember to use the y-values from your data and not the ones pictured to the right.	
14. Move the insertion point to the denominator of the fraction. Type the difference between the x-values for your data.	

15. Move the insertion point outside the fraction and type =. Evaluate the fraction and type the result like in the example to the right. Your fraction and slope will be different from this example.	5) $m = \frac{2285-2061}{9-7} = 112$
16. This equation is currently an inline equation. We can put his equation on a line by itself by changing it to a Display equation. Use your mouse to click on the small black triangle on the lower right corner of the equation window. From the menu that appears, select "Change to Display".	2285) $m = \frac{2285-2061}{9-7} = 112$ Save as New Equation... Professional Linear Change to Display Justification
17. The equation will move to its own line.	h the points (7, 2061) and (9, 2285) is $m = \frac{2285 - 2061}{9 - 7} = 112$
18. We want to keep this equation as a display equation. However, we can change it back to an inline equation by clicking on the small triangle again and selecting "Change to Inline".	$m = \frac{2285 - 2061}{9 - 7} = 112$ Save as New Equation... Professional Linear Change to Inline Justification

19. Move the insertion point to the next line by pressing Enter on the keyboard. Type the text you see below.

$$m = \frac{2285 - 2061}{9 - 7} = 112$$

To find the value of b in the slope intercept form, solve

20. On the Insert tab. click on the Equation button to insert an equation box after the word solve. In the box, we want to type the equation that results when we substitute the slope and one ordered pair in $y = mx + b$. Type the y value, equal sign, and the slope to start.	
21. After the slope, we need to type a multiplication dot to indicate that the slope is multiplied by the x value. Under the Design tab, click on small box with a dash and triangle to the lower right of the Symbols panel.	
22. Locate the dot on the Symbols panel and select it with the mouse.	
23. The multiplication dot will be inserted into the equation.	
24. Complete the equation using the x value and the rest of the symbols in the slope-intercept form.	lve $2285 = 112 \cdot 9 + b$.
25. Continue typing the text you see below. After you type "to", create an equation and type in the equation of the line in the graph. To put it on its own line, you'll need to change the equation to be a Display equation. 	

26. Your document should now look similar to the one you see below.

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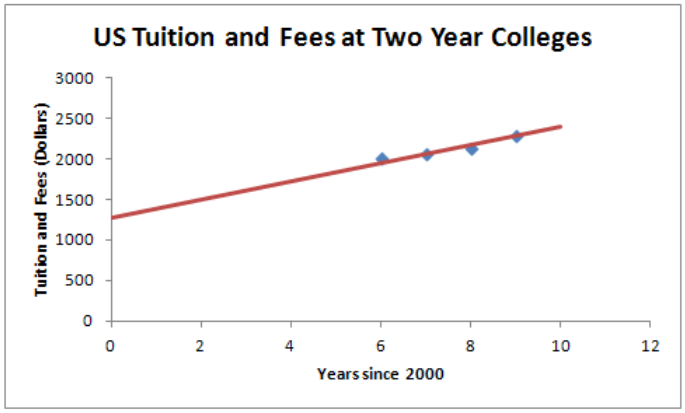


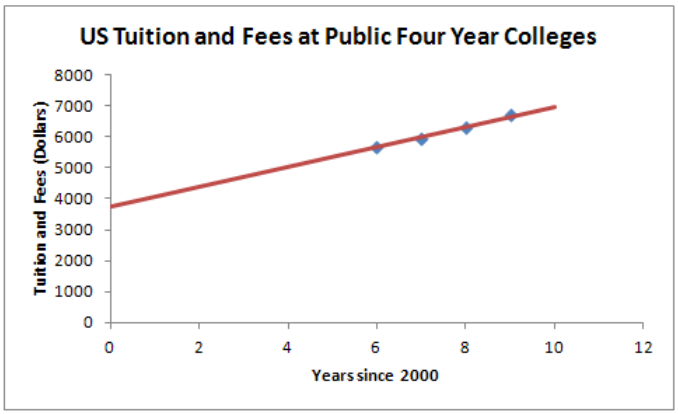
The slope of the line passing through the points (7, 2061) and (9, 2285) is

$$m = \frac{2285 - 2061}{9 - 7} = 112$$

To find the value of b in the slope intercept form, solve $2285 = 112 \cdot 9 + b$. This leads to

$$y = 112x + 1277$$

27. Repeat steps 1 through 25 to paste the second graph in your Excel worksheet and the corresponding equation into the document. When complete, your document should include a section like the one you see below.



The slope of the line passing through the points (6, 5666) and (8, 6312) is

$$m = \frac{6312 - 5666}{8 - 6} = 323$$

To find the value of b in the slope intercept form, solve $6312 = 323 \cdot 8 + b$. This leads to

$$y = 323x + 3728$$

28. Make sure you save this document. This document is what you will submit for this technology assignment. It should contain the two graphs as well as the text describing the equation.