**MATH133 Unit 4: Functions and Their Graphs**

**Individual Project Assignment: Version 2A**

**Name (Required):** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**IMPORTANT: Please see Question 3 under Problem 2 for special instructions for this week’s IP assignment. This is mandatory.**

Show all of your work details for these calculations. Please review [this Web site](http://www.purplemath.com/modules/mathtext.htm) to see how to type mathematics using the keyboard symbols. Handwritten scanned work is not acceptable for AIU Online.

**Problem 1: Children’s Growth**

1. (Show all your work and display these calculated values of and in the t-tables below).



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1. (Insert the graphs below.)
2. (Show all the steps for solving this radical equation on the Answer form provided.)
3. (Show all your work on the Answer form provided.)
4. (Show all your work on the Answer form provided.)
5. Describe the transformations of the of the radical function, , that will result in each of these functions.

1. (State which intelli**path** Learning Nodes helped you with this problem.)

**Problem 2: Average Cost**

1. Based on the first letter of your last name, choose values for *m* and *b* from the following tables (Neither *m* nor *b* has to be a whole number):

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| **First letter of your last name** | **Possible values for *m*** |
| A–F | $10–$19 |
| G–L | $20–$29 |
| M–R | $30–$39 |
| S–Z | $40–$49 |

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| **First letter of your last name** | **Possible values for *b*** |
| A–F | $100–$149 |
| G–L | $150–$199 |
| M–R | $200–$299 |
| S–Z | $300–$399 |

1. (Briefly describe the company and product.)
2. **(IMPORTANT) By Wednesday night at midnight submit in the Unit 4 submissions area a Word document stating ONLY your name and your chosen values for and above. (This submitted Word document will be used to determine the Last Day of Attendance for government reporting purposes.)**

1. Choose five values of *x* < 50, and calculate the corresponding values of . Display these *x* and values in a t-table. (Show all of your work details for these calculations. Please review [this Web site](http://www.purplemath.com/modules/mathtext.htm) to see how to type mathematics using the keyboard symbols.)



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1. (Insert the graph below.)
2. (Explain your answer.)
3. (Show all of your work.)
4. (Describe the transformations.)
5. (Explain your answer.)
6. (State the intelli**path** Learning Nodes that helped you with this problem.)

**Reference**

*Formatting math as text*. (n.d.). Retrieved from the Purple Math Web site: http://www.purplemath.com/modules/mathtext.htm