**C:\Users\LArcher\AppData\Local\Microsoft\Windows\Temporary Internet Files\Content.IE5\53GQXKH0\MC900012970[1].wmf**Project 1

5th Grade Critical Thinking in Mathematics – Mrs. Archer

**Delicious Decimals!**

**Use your decimal knowledge to find the sweetest deal!**

Due: November 29, 2011

* You and your partner(s) will buy three different kinds of candy that have similar-sized pieces. You can decide in advance which kinds of candy you want to compare so that one person will not have to purchase all of the candy. Choose candy that has **multiple** pieces in a package (m&m’s instead of a candy bar). You will need to get individual packages of candy instead of large bags of “minis.”
  + For example, you may choose to compare regular size bags of: m&m's, Skittles, and Reese's Pieces.
* Save the receipts. You will use the purchase prices (not including sales tax) to solve math problems.
* Open one package of candy (you will need to use and keep the wrapper, so open it carefully) and count exactly how many pieces are inside. Write down your results on the data sheet provided.
* Use the unit price formula to find the cost of each **individual** piece of candy in the package. Show/explain how you found your results (show math/computational work).

*Unit price = cost of item ÷ number of units*

* Look at the nutrition facts to find the number of calories per individual piece of candy. Remember to consider the serving size and number of servings per package. Use the unit price formula to find the number of calories per piece. Show/explain how you found your results.
* Look at the nutrition facts to find the number of grams of sugar per individual piece of candy. Remember to consider the serving size and number of servings per package. Use the unit price formula to find the number of grams of sugar per individual piece. Show/explain how you found your results.
* Repeat these steps for each type of candy.
* Determine which candy purchase you think is the "sweetest deal." Here are some questions to consider:
  + Which one costs the least/most per individual piece?
  + Which candy has the least/most sugar per individual piece?
  + Which candy has the least/most calories per individual piece?
  + How do the three kinds of candy compare with each other?
  + If you could buy ONLY ONE of these three candies next time (spending your own money), which would you choose to purchase? Explain your reasoning.
* Display your results on a poster. Students will be given class time to work on posters together. They should plan to bring supplies to class on Tuesday 11/15/11. Posters should include:
  + A title (you may be creative), names, date, and class period
  + Three candy wrappers (please attach these so that the nutrition facts can be accessed)
  + Receipt showing candy prices
  + A visual representation of your data (graph of your choice)
  + Computations and math work written neatly and labeled clearly with titles/units/explanations
  + DO NOT USE ANY ACTUAL CANDY to decorate your poster.

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Project will be counted as a test/project grade. Grades will be determined according to the following rubric:

**Scoring Rubric**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **6 points** | **7 points** | **8 points** | **9 points** | **10 points** |
| **Completion** | Requirements were not met. | Few of the requirements were met. | Some of the requirements were met. | Most of the requirements were met. | All of the requirements were met. |
| **Mathematics** | Many computation mistakes.  Most of the math work not shown clearly. | Some computation mistakes.  Some math work not shown clearly. | One computation mistake.  Some math work not shown clearly. | No computation mistakes.  Some math work not shown clearly. | No computation mistakes.  All math work shown clearly. |
| **Clarity/Display** | Information presented in a way that is very unclear.  Display does not meet expectations, and is very messy. | Information is presented in a way that is slightly unclear.  Display does not meet expectations, and is slightly messy. | Information is presented in a way that is clear.  Display meets expectations, and is visually acceptable. | Information is presented in a way that is very clear.  Display meets expectations, and is visually appealing. | Information is presented in a way that exceeds expectations.  Display exceeds expectations, and is very visually appealing. |

Project 1 is due November 29, 2011

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Type of candy:** | | **Number of individual pieces:** | | **Cost of candy:** |
| **Price per piece:** | **Calories per piece:** | | **Grams of sugar per piece:** | |

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period:\_\_\_\_\_\_\_\_

Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period:\_\_\_\_\_\_\_\_

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Type of candy:** | | **Number of individual pieces:** | | **Cost of candy:** |
| **Price per piece:** | **Calories per piece:** | | **Grams of sugar per piece:** | |