Writing in Middle School

Whole Numbers

1. Find the altitude of your city and do some research to find out how it is calculated.
2. Which is easier for you- multiplication or division? Why do you think one is easier than the other?

Decimals

1. Explain the difference between truncation and rounding. Which one do you prefer? Give examples of each and situations where each is appropriate.
2. Describe situations in your life when you need to use decimals.
3. Fred is very upset. He multiplies 5 by 3, and gets a greater number- 15. But when he multiplies 0,5 by 0.3, he gets a number that is less than either one- 0.15. He has always thought that multiplying two numbers results in a number greater than either of the two factors. Explain to him why the results can be different when he multiplies decimals. In your explanation, include examples of when the product of the two decimals lies between the two factors and when the product is greater than each of the two factors.

Metric Measurement

1. Write a note to your mother, explaining why it would be better for her to spend $1.99 on a two-liter bottle of soda than on a six-pack of soda.
2. Write a letter to the President of the United States, convincing him that the United States should or should not convert to the metric system.

Equations and Number Theory

1. Explain the need for the order of operations. (Give an example of how a calculation could have several different answers if the order of operations is not followed.)
2. Do you think there are a limited number of prime numbers or an infinite number? Explain your reasoning.

Fraction

1. Write a letter to a fifth-grader explaining (step-by-step) how to add like and unlike fractions?
2. Explain in three different ways what it means when fractions are equivalent?
3. Give examples of different ways to represent 3/4? Explain how they represent the same fractional number.
4. Why do you need a common denominator to add fractions?

Introduction to Geometry

1. Susie is the editor of the yearbook. She is working with a picture that covers 100 squares on her grid paper. She notices that after she cuts each side in half, the picture only covers 25 squares. This is a problem for her because she needs to cover 50 squares with this picture. She doesn't understand why this is happening, and she is becoming very frustrated. Write a note to her explaining why this is happening and give her some hints on how to solve her problem.
2. You have been hired by the Johnson's to design a garden that contains 48 square feet of planning area. Give them examples of at least four different rectangular gardens. Include in each the amount of fencing required to surround the garden and how you calculated the area.

Ratio/Proportion/Percent

1. If two boys drink six bottles of soda in two days, how can you determine the number of bottle ten boys will drink in eight days?
2. Clearly explain how a city with 9.2 persons per square mile could have a smaller population than one with 5.6 persons per square mile.

The Write Equation- Writing in the Mathematics Classroom
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