Math Problems Using Charts and Tables

1. The students conduct a survey to determine how dangerous pets are. They list the kinds of pets that all the students have at their school. Then, they list the types of damage that the pets inflict. Examples: bites, scratches and stings. They also measure how severe each attack was, examples: hurt, required medicine, required a bandage, required hospitalization, or required a funeral.

    Make graphs to show the numbers of each. Also, list the total number of students and the total number of each pet. Note that snakebites can be either poisonous or non-poisonous, depending on the type of snake the pet is. But, not many children keep cobras and mambas for pets.

    Suggestions: Make two tables. One table will be for the types of damage that the students' pets create. The second table will be for how severe the damage is.

2. The homeless man and his partner were selling newspapers on the street next to the supermarket, and on the street next to the gas station at the corner of the mall. They make 10cents for each daily paper they sell and they make 45cents for each Sunday paper that they sell.

    The homeless partners sell papers from 6:00 a.m. until 9:00 a.m. Monday through Saturday, and from 7:00 a.m. to 1:30 p.m. on Sunday. The rest of the time they stand on the corner with "Will work for Food" signs, or they sleep under a nearby bridge. Sometimes they beg for money in the mall parking lot.

    Create charts and tables to show whether selling papers, begging or holding the "Will work for Food" sign is most profitable. Also, use the carts to determine what days each should take off since they make more money on Sunday selling papers, but almost no money on Sunday with the "Will work for Food" signs.

    Suggestions: Make several tables, Tables for the separate locations and tables for the separate jobs. Treat begging as a unpredictable activity

3. The students in one class want to know what kinds of jobs the mothers and fathers of all the students in the school have. They also want to know how many mothers and fathers are unemployed or on welfare.

    The students want to classify jobs, so they will create job categories. For example: pre-school teachers, high school teachers, bilingual teachers and college professors would all be classified as "Teachers." Principals would also be classified as "Teachers, "while the school secretary would be classified as an Office Workers," along with receptionists, clerks, and administrative assistants. Policemen and firemen (and women) would be classified as Pubic Safety. Letter carriers would be classified as "Public Servants". Store clerks and telemarketers would be classified as "Sales." Create a category of "Miscellaneous" to hold all kinds of jobs that are not part of other categories.

    The students also want to know how long people in each group have worked in their profession, and they want to know how much money each makes.

    Suggestions: Make several charts to show what jobs fit under each category. Make separate charts to show summary numbers for fathers and mothers for the totals working, on welfare, and unemployed. The students also have to be careful that they don't count the parents who have several children more than one time. For example: one set of parents may have children in the first, third, and forth grades. These parents should be only counted one time.