

## VCTM 2015 Math Beauty Contest

**For each grade level, be sure to include a paragraph that full explains your thinking**

### **K – 2: This is the same description we use for K – 2 entries each year:**

Please create a pattern that is either a growing or repeating pattern or both. Please be sure to tell what your thinking was by writing a paragraph explaining your thoughts about your creation of the pattern. Students who are not able to write the paragraph may dictate it to an adult who can write exactly what the student says.

### **3 – 5:**

At Mary's birthday party when she turned 8 years old her friends gave her gifts. She got coloring books, games, dolls, and puzzles. She got three times as many coloring books as games and twice as many puzzles as dolls. She got a total of 21 gifts. How many of each of the gifts did she get?

### **6 – 8:**

The Jones Family went to the zoo. When the Jones family went to the zoo they saw the same number of lions as tigers and the same number of elephants as giraffes. They figured out that there were  $\frac{1}{2}$  as many lions and tigers combined as elephants and giraffes combined. When they counted the lions, tigers, elephants and giraffes the total number of animals was 18 altogether. How many of each of these animals did they see at the zoo?

### **9 – Algebra I:**

The Parker family went to a vehicle dealership to possibly buy a new vehicle. When they got there they checked to see what was for sale. They saw 4 wheel cars, 2 wheel motorcycles and 3 wheel motor scooters. The Parker children decided to count the number of each of the vehicles that they saw. They saw  $\frac{1}{2}$  as many 3 wheel motor scooters as 2 wheel motorcycles and twice as many 4 wheel cars as 2 wheel motorcycles and 3 wheel motor scooters combined. When they added up the total number of vehicles there were 90. They also figured out that there were 310 wheels altogether. How many 2 wheel motorcycles were there? How many 3 wheel motor scooters were there? How many 4 wheel cars were there?

### **Above Algebra I:**

The Smith family went to the zoo. They decided to count the number of giraffes, elephants, bears, ostriches and peacocks that they saw. They used the data that they collected to write a story problem that their friends could try to solve. Here is their problem. When we went to the zoo we saw  $\frac{1}{2}$  as many elephants as giraffes and half as many peacocks as ostriches. There were 4 more ostriches than giraffes. We saw  $\frac{1}{3}$  as many bears as giraffes and elephants combined. There were a total of 27 birds and animals combined. We also figured out that altogether there were 78 feet. How many giraffes, how many elephants, how many bears, how many ostriches and how many peacocks did we see?