

VCTM 2017 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:

John's family had a birthday party for him at a pizza restaurant. There were 14 people at the party. Each person got 3 pieces of pizza. His parents ordered 6 pizzas. Each pizza had 8 slices. Each person ate their 3 pieces of pizza.

How many slices of pizza were left for John's family to take home with them?

6 – 8:

Mary's mom and dad always liked to give her the pennies, nickels, dimes and quarters that they had. Mary would put them in separate bags. She put pennies in one bag. She put nickels in another bag. She put dimes in another bag and quarters in another bag. One day Mary counted the coins. She counted 80 pennies. She counted 4 times as many nickels as pennies. She counted 3 times as many dimes as pennies. She counted $\frac{1}{2}$ as many quarters as pennies. How many nickels, dimes, and quarters did she have? What was the total number of coins that she had? When she added up all the money how much money did she have?

9 – Algebra I:

John got a check for some grass cutting he had done. When he went to the bank and cashed the check he got \$20 bills, \$10 bills, \$5 bills and \$1 bills. He got a total of 28 bills. He got $\frac{1}{4}$ as many \$10 bills as \$20 bills and $1\frac{1}{2}$ times as many \$5 bills as \$20 bills and $\frac{3}{4}$ as many \$1 bills as \$20 bills. How many of each bill did he get? What was the total amount of money he got?

Above Algebra 1:

Tom's family lived on a farm. They had animals and birds on their farm. Tom helped his parents by feeding the animals and birds. There were 3 times as many turkeys as chickens and $\frac{1}{3}$ as many pigs as cows. There were the same number of chickens as pigs and the same number of cows as turkeys. There were 5 more horses than cows and there were $\frac{1}{2}$ as many donkeys as horses. There were 45 birds and animals altogether. Tom also figured out that there were a total of 156 legs for all the animals and birds combined. How many chickens, turkeys, pigs, cows, horses, and donkeys were there?