

MATHCOUNTS[®] Problem of the Week Archive

Counting Down to Nationals – April 29, 2019

Problems

The countdown round is often the most anticipated and exciting part of competition for Mathletes[®] and spectators alike. Here are some of our favorite countdown round problems from the 2019 competitions.

School #16

On a certain farm, each chicken has two feet and each rabbit has four feet. If the combined number of chickens and rabbits on the farm is 100 and there are a total of 260 feet on these animals, how many chickens are there?

Chapter #59

Seven consecutive even integers have a sum of 406. What is the sum of the least and the greatest of the seven integers?

State #43

Scott is thinking of a positive integer that is one more than, or one less than a multiple of 4. Quincy is thinking of an integer that is one more than, or one less than a multiple of 10. Stella is thinking of an integer with an even number of positive integer divisors. If all three are thinking of the same integer n , what is the least possible value of n ?