

Welcome Back Puzzles 2018-19

Puzzle Contest 1 (grades 5 and Up)



1. Christopher Robin gave 70 balloons to Winnie-the-Pooh at the beginning of the school year. Immediately Winnie-the-Pooh shared with Piglet, Rabbit, and Eeyore as follows:
 - ✓ each of them got at least 1 balloon;
 - ✓ Winnie-the-Pooh left for himself more balloons than each of his friends got;
 - ✓ Rabbit and Piglet got 45 balloons together.How many balloons did Eeyore get and how many balloons did Winnie-the-Pooh leave for himself? **(60 points)**

2. Two students are playing a game where they take turns writing one digit, each digit to the right of the last, until they have created a 30-digit number. They can use only the digits 1, 2, 3, 4 and 5. Student A wants the final number to be divisible by 9, and Student B wants to keep Student A from succeeding. If Student B starts, does a strategy exist for Student A to succeed? If so, what is it, if it not, why not? **(40 points)**

Solutions deadline is October 7

Please submit your solutions to anna.charny@metrowestschool.com or bring them to the office