

## Junior Problems: Term 2 Week 6

CGS Maths Club

June 1, 2023

**Problem 1.** You have twelve red, eight blue and seven green socks. How many socks need to be selected at random to ensure that you have a matching pair?

**Problem 2.** Type the number of seconds in a week using the smallest number of characters!

**Problem 3.** Alice and Bob roll an unbiased 6-sided die until two consecutive rolls are the same. They add up the scores from all of the rolls. If the total is even, Alice wins; if it is odd, Bob wins. Who is more likely to win?

**Problem 4.** Find the largest and the smallest 4-digit numbers  $n$  such that when you erase the first two digits of  $n$ , you get the sum of the digits of  $n$ .

Email Garv if you have any question :D