

Math 5b, homework 13.



1. In a bag, there are three red marbles, two blue marbles and one yellow marble, find the probability of getting
  - a. red marble
  - b. blue marble
  - c. yellow marble
2. Find the sum of the digits in the decimal notation of the number  $4^{12} \cdot 5^{21}$ .
3. Represent the number 203 as the sum of several positive terms (natural numbers) so that the product of these terms is equal to 203. (do the prime factorization of 203)
4. I walk from home to school for 30 minutes and my brother for 40 minutes. In how many minutes will I catch up with my brother if he leaves the house 5 minutes before me?
5. John and Robert ran in a race. John ran at the same speed all the way, and Robert ran twice as fast as Piero for the first half of the journey and twice as slow as Piero for the second half. Who won?
6. In which number system is the equality  $3 \cdot 4 = 10$  correct?