

MATH 5: HANDOUT 1
REVIEW I

Each homework has problems of varying difficulty. It is not expected that you can do all of them, so do not worry if some problems seem difficult and you cannot solve them. Please, try and show your way of thinking. Make sure to show your work, not just an answer. If you have questions regarding homework problems or material, please, email me at stepanenko@schoolnova.org.

Please, write homework on a **separate quadrille piece** of paper.

THIS WEEK WE REVIEWED FOLLOWING TOPICS IN THE CLASS

- Divisibility tests by 2, 3, 4, 5, 6, 9. Divisors (factors), multiples.
- LCM, GCD. Finding by listing of all divisors.
- Prime numbers. Prime factorization.
- Finding GCD and LCM using prime factorization.

THIS TOPIC WE HAVEN'T REVIEWED YET, CHALLENGE YOURSELF AND REFRESH YOUR MATH SKILLS

- Fractions



Picture from New Elementary Math Textbook 1.

PROBLEMS

1. Is the number 12345 divisible by 3? by 9? by 5? by 10?
2. If it is 7am now, what time of the day will it be in 27 hours? 127 hours? 11043 hours?
3. A package of plastic forks contains 16 forks. A package of plastic knives contains 12 knives. What is the smallest number of packages of each kind you have to buy to get exactly the same number of forks as knives?
4. Find a prime factorization of 204.
5. Find LCM and GCD of 365 and 30.
6. In each problem below, you are given a list of divisibility facts about a number. Your goal is to figure out what this number is.
 - (a) The secret number:
 - is divisible by 7,
 - is divisible by 11,
 - is divisible by 2,
 - has 3 prime factors total.
 - (b) The secret number:
 - is divisible by 4,
 - is divisible by 6,
 - has 3 prime factors total.
 - (c) The secret number:
 - is not divisible by 8,
 - is divisible by 4,
 - is divisible by 6,
 - is divisible by 7,
 - has 4 prime factors total.
 - (d) The secret number:
 - is divisible by 14,
 - is divisible by 21,
 - is divisible by 6,
 - has 3 prime factors total.
 - (e) The secret number:
 - is not divisible by 27,
 - is divisible by 6,
 - is divisible by 9,
 - is divisible by 4,
 - has 4 prime factors total.
7. Mrs. Weatherby baked 175 cookies for a party. The children ate $\frac{4}{7}$ of the cookies. The adults ate 48 cookies. How many cookies were left?
8. There are 4 short stories in the book. The first story is 12 pages long, which is $\frac{2}{3}$ of the second story. The third story is $\frac{5}{6}$ of the length of the first two stories together. How long is the fourth story, if four stories together occupy 64 pages in the book?
9. Find the following sums

$$1 + 2 + 3 + \cdots + 49$$

$$1 + 3 + 5 + \cdots + 49$$