Math 4a. HW 24.

1. How many three-digit numbers can be composed from digits 3, 4, 5, without repetitions. How many of these numbers will be odd? Even? Will be divisible by 3, by 6, by 5?
2. How many three digit numbers can be composed from digits 0, 1, 2, 3 if
   a. repetition of digit is allowed
   b. repetition of digit is not allowed?

3. A musketeer has three beautiful hats, four elegant tabards, and two pairs of excellent boots. How many different costumes can he wear?
(tabard - a sleeveless jerkin consisting only of front and back pieces with a hole for the head.

4. There are 10 green and 5 red pencils in the box. Which is the smallest number of the pencils you have to take out of the box, to be sure that you have 2 green pencils? 2 red pencils? 2 pencils of different color? 2 pencils of the same color?

5. There are 10 pairs of red gloves and 10 pairs of black gloves in a box. How many gloves do you have to take out to be sure that you have a pair of gloves that you can wear?

6. Fill the empty spaces in the table:

a	0	1	-1	10	-10	0.1	-0.1	$\frac{1}{2}$	$-\frac{1}{2}$
a^2									
a^3									
a^4									

7. Evaluate:

$$-\frac{3}{4}+2\frac{1}{3}; \quad \frac{5}{8}\cdot\frac{4}{15}-0.7; \quad -\frac{3}{7}:\frac{15}{21}+1.3;$$