

## Classwork 14.



1. Represent the periodic infinite decimals as fractions:  
 $0.\bar{8}$ ,  $0.\bar{4}$ ,  $0.\overline{18}$ ,  $0.\overline{125}$ ,  $0.1\overline{25}$
2. Write as decimal:  
 $1001011_2$ ,  $11101110_2$
3. Write as binary:  
34, 81, 61
4. Multiply  
 $(2x + 3)(x + xy + 2)$ ;  $(2 - y)(y^2 + y)$
5. Solve equations:  
 $2x + 3(4 - x) = 23 + 4x$ ;  $3x - 4 = 2(3x - 4)$
6. Seawater contains 5% of salt. How much salt is in a glass (200 grams) of seawater.  
How much sea water is needed to get 200 grams of salt?  
How much fresh water should be added to 40 kg of seawater to get a solution with 2% salt?
7. The bath tub can be filled with cold water in 6 minutes 40 seconds, and with hot water in 8 minutes. In addition, if the stopper is removed from a full bath, the water will flow out in 13 minutes and 20 seconds. How long will it take to fill the bath completely, provided that both taps are open, but the bath is not plugged?
8. What is the last digit of a number  $3^{15}$ ?
9. For 3 numbers find the fourth to be able to create a proportion:  
*a.* 20, 5, 7 *b.* 10, 16, 3