Math 4d. Homework 12.

school nova

1. Write the following as mathematical expression. If this expression is an equation, solve it.
   a. Sum of the number x and 15 equals to 20.
   b. Product of y and 10.
   c. Difference between three times z and 4 is equal to 12.
   d. Half of the number b is equal to 1.5
   e. Product of the numbers of 5 and x is less than 12.

2. There were 624 books in two boxes altogether. When 1/3 of the books from one box and 3/7 of the books from another box were sold to the customers, the number of books in each box became equal. How many books were there in each box at the beginning?

3. The sum of three consecutive odd numbers is 135. What is the smallest of the three numbers?

4. Solve the equations:
   $a.$ $12 + 3x = 33$ $b.$ $2x + 3 = 100x - 95$
   $c.$ $-(4s - 7) = 11 - 2s$ $d.$ $18 - 4y = 7(2y + 6)$

5. Evaluate:

   $a.$ $1 - \dfrac{1}{1 + \frac{1}{2}}$; $b.$ $1 + \dfrac{1}{1 + \dfrac{1}{1 + \frac{1}{2}}}$; $c.$ $\dfrac{4 + \dfrac{1}{\frac{1}{2} - \frac{1}{3}}}{4 - \dfrac{1}{\frac{1}{2} - \frac{1}{3}}}$

6. There are singers and dancers in our class. $\frac{1}{5}$ of all singers also dance and $\frac{1}{4}$ of all dancers also sing. Are there more singers or dancers in our class?

7. Put $+,-,\cdot,\div$ or parentasis to make the following statement thrue.

Example: $1 \ 1 \ 1 \ 1 \ -1 \ 1 \ 1 = 1000$

    a. $1 \ 1 \ 1 \ 1 \ 1 \ 1 \ 1 = 1000$;

    b. $3 \ 3 \ 3 \ 3 \ 3 \ 3 = 1000$;

    c. $5 \ 5 \ 5 \ 5 \ 5 \ 5 \ 5 = 1000$;

    d. $7 \ 7 \ 7 \ 7 \ 7 \ 7 \ 7 \ 7 = 1000$;

    e. $9 \ 9 \ 9 \ 9 \ 9 = 1000$.