Math 4d. Homework 24.

1. First, write the expression without parenthesis and then evaluate.
   Check your answer evaluating the same expression with parenthesis:
   Example:
   $(5.6-7.2)-(-7.2+3.4)=5.6-7.2+7.2-3.4=5.6-3.4=2.2$
   $(5.6-7.2)-(-7.2+3.4)=-1.6-(-3.8)=-1.6+3.8=2.2$
   $a.\ -3.64-(12.45-3.64);$
   $b.\ \left(2.4-\frac{2}{3}\right)+2.4-\left(1.8+1\frac{5}{6}\right);$
   $c.\ 45-(-7+18)-(34-18+26);$
   $d.\ -9.7+(-3.8+5.2)-(2.9-5.2-9.7)+3.8;$

2. I walk from home to school in 30 minutes, and my brother walks in 40 minutes. In how many minutes will I catch up with my brother if he left home 5 minutes earlier than me?

3. Vanya had cookies; he ate some, then Tanya came to visit him, and they shared the remaining cookies equally. It turned out that Vanya ate five times more cookies than Tanya. What share of all the cookies did Vanya eat by the time of Tanya's arrival.

4. Compare:

   Example:

   $28^2 \quad 1000; \qquad 28^2 = 28\cdot 28 < 30\cdot 30 = 900; 900 < 1000,$

   therefore $28^2 < 1000$

   $a.\ 28^2 \quad 1000;$ $b.\ 48^2 \quad 3000;$
   $a.\ 42^2 \quad 1500;$ $b.\ 67^2 \quad 3500;$

5. Write the number which extended for is written below;
   Example: $2\cdot 10^3+7\cdot 10^2+2\cdot 10+6=2726;$
   $a.\ 2\cdot 10^3+4\cdot 10^2+5\cdot 10+8;$ $b.\ 7\cdot 10^3+2\cdot 10^2+0\cdot 10+1;$
   $c.\ 9\cdot 10^3+3\cdot 10+3;$ $e.\ 4\cdot 10^3+1\cdot 10^2+1\cdot 10+4;$

6. Evaluate and compare:

   $a.\ 2 \cdot 10^3$ and $(2 \cdot 10)^3$; $b.\ 3 \cdot 2^2$ and $(3 \cdot 2)^3$;
   $c.\ 2 \cdot 5^3$ and $(2 \cdot 5)^3$; $b.\ 12:2^2$ and $(12:2)^2$;

7. Put digits instead of stars to create the true equalities. How many answers does each problem have?

   $a.\ (2*)^2 = ** 1$; $b.\ (7*)^2 = *** 5$; $c.\ (3*)^2 = *** 6$; $d.\ (2*)^2 = ** 9$;