Math 4d. Homework 20.



- 1. One side of a rectangle was reduced by 20%, the other side was increased by 20%. How the area of the rectangle changed?
- 2. Find the equivalent statements among statements below:
 - a. A is 40% of B.
 - b. A is 4 times smaller than B.
 - c. A is 25% of B.
 - d. A is 2 times smaller than B.
 - e. B is greater than A by 300%.
 - f. B is 2.5 times greater than A.
 - g. B is greater than A by 100%
 - h. A is smaller than B by 75%.
 - i. A is 50 % of B.
 - j. B is greater than A by 150%
- 3. Solve the problems:
 - a. A school library bought 30 books, 20 or 25 dollars each. Altogether books cost \$665. How many books cost 20 dollars?
 - b. 3 identical books and 5 identical notebooks costs 95 dollars, but 1 same book and 2 same notebooks cost 33 dollars. How expensive are one book and one notebook?
- 4. Compute by the most convenient way:

a.
$$5.1 + 8.4 - (-5.1) - 10.2 - (+8.4) - 9.8 - (15);$$

b. $-7.81 + 9.64 - 5.32 - (+7.81) + (5.32) - 9.64;$
c. $13.4 + 8.22 - (+1.3) - (-4.78) + (-8) - 10 - 3.4$
d. $-21 + (-0.68) - (-7.4) + (-3.2) - (+6.8) + 21.68;$
e. $-48 + 51 \div 10 + 4.8 \cdot 10 + (-6.4) - 51 - (-7.2) - (+3);$
f. $93 + 8.23 \cdot 10 - (-9.6) + (-82.3) + 9.3 \cdot (-10) - (+0.4);$
g. $2.4 \div (-2) - 3.8 - (-5.9) - (+6.2) + 1.2 + 4.1;$
h. $-(-7.7) + (-8.1) \div 9 + 0.9 - (+1.4) + 15.4 \div 2 - (-8.2);$



5. Robert has 2 dogs; one weighs 9 kg and another is 3 kg. He bought a bag of dog food and wants to divide the food between dogs with the same ratio as their weights. How many kilograms of dog food each dog will get if the weight of the whole bag of food is 8 kg?



- 6. When natural number N is divided by 8, the remainder is 5. What will be the remainder of $(2 \cdot N)$ upon division by 8?
- 7. Solve the following equations:

$$0.12 + x = 0.4$$

$$x - 5.4 = \frac{1}{6}$$

$$3 - x = 0.003$$

$$\frac{x - 4}{5} = 9 + \frac{2x + 4}{9}$$