Accelerated math. Homework 1.



- 1. Calculate by the most convenient way:
 - a. (2608 + 529) + (392 + 271) =
 - b. (1016 + 704) + 250 + (884 + 296) =
 - c. $120 \cdot 35 + 12 \cdot 650 =$
 - d. $2 \cdot 15 \cdot 20 \cdot 3 \cdot 5 =$
- 2. Solve the problem, write the solution on a sheet of paper, draw the picture if it will help you:

A cow weighs 20 times as much as a sheep weights. Together the cow and the sheep weight 2100 lb. How many pounds does the sheep weight? How many pounds does the cow weight?

3. Write an expressions for the following problem and solve it using given numbers:

A tourist needs to go a kilometers. He walked 4 hours with the speed of b km/hour. How many more kilometers does he need to go?

Solve the problem if

- $a = 30 \ km$ and b = 4km/hour
- $a = 36 \ km$ and $b = 5 \ km/hour$
- 4. Solve the following equations:
 - a. 3z 11 = 16
 - b. 62 + 2y + 5 = 81
 - c. 101 4x = 21

5. Factorization is a presentation of a number or an expression as a product of 2 or more factors. Represent (factorize) the following numbers as a product of 2 or more numbers:

11 =

Example: $44 = 4 \cdot 11 = 2 \cdot 2 \cdot 11$

55=

27= 18= 49=

102=

6. Solve the following problem, write your solution on paper:

Rebecca wants to decorate the box with a birthday present for her friend Alice with a ribbon as shown in the picture on the right. How long should the ribbon be if 90 cm should be left for the ends and the bow?



7. What number should be placed instead of "?"? Try to do the calculations in your head.



- 8. Place parentheses into the following expression so that the statement is true.
 - a. $15 35 + 5 \div 4 = 5$ b. 60 + 40 - 16: 4 = 66c. 24: 56 - 8 * 4 = 1d. 96 - 12 * 6: 3 = 8e. 64: 64 - 8 * 4 = 2f. 63: 9 + 54 = 1g. 75 - 15: 5 + 10 = 22.
- 9. Compare 2 expressions without doing any calculations:
 - a. 231345 12533 231345 12469b. n + 34 n + 28c. $45678 \div 234$ $45678 \div 199$ d. -457 - 35 -457 - 36
- 10. Rewrite the following expression without parentheses (use the distributive property):
 - a. $12 \cdot (3+9) =$ b. a(5+b) =
 - c. $(6+8) \cdot 8 =$
 - d. $(a+b) \cdot 4 =$

