

### MATH 3/4: ASSIGNMENT 3

JANUARY 31, 2010

#### WORD PROBLEMS

1. A plate costs \$4 and 12 cups cost \$72. Write a numerical expression that represents how much 1 plate and 1 cup cost together. Find the value of the numerical expression.
2. The weight of a barrel of cider is 25kg 100g. The weight of the empty barrel is 9 kg 140g. One liter of cider weights 798g. Write a numerical expression that represents how many liters of cider are in the barrel. Find the value of the numerical expression.
3. There was 5 tons 200 kg of wheat in two barns. Farmers Bob and Billy took some wheat from each barn. They divided this wheat into two equal parts and loaded two trucks equally. After that there were 2750 kg of wheat left in one barn and 550 kg in the other barn. Write a numerical expression that represents how many kg of wheat was loaded on each truck. Find the value of the numerical expression.
4. Michael has four more nickels than quarters. This amounts to \$1.40. Find the number of quarters and the number of nickels.
5. A gentleman gave 6 cents each to his little grandchildren; had he given them 10 cents each, it would have taken 28 cents more; how many little grandchildren does he have?
6. "Give me two dollars", said a boy to his sister. Then we'll have equal amounts of money! The sister gave him two dollars. How much more money did the sister have in the beginning?

Homework problems on back

## HOMWORK

For the homework, let me remind you that you should write solutions, showing your calculations and your reasoning — not just answers! Do not write on this homework assignment — use a separate sheet of paper instead; leave the homework assignment in your folder for future reference.

1. Farmer was making three kinds of jelly: raspberry, black currant and strawberry. She had 45 kg of all the berries put together. It is known that she had 6kg of raspberries and three times as much of strawberries. How many kg of black currant did the farmer have?
2. Bill solves 15 math problems a week, and Alice solves 17 math problems a week. Write the expressions for and calculate:
  - (a) Number of problems Bill solves in three weeks.
  - (b) Number of problems Alice solves in three weeks.
  - (c) How many math problems will they solve together in three weeks?
3. Make up a word problem, so that the answer to it will be the value of the following numerical expression:

$$(27 + 16) \times 2$$

4. Natalie spent \$36 and bought several pens at \$6 each. Ellen spent \$20 and bought several pens at \$5 each. Write the expressions for and calculate:
  - (a) How many pens did Natalie buy?
  - (b) How many pens did Ellen buy?
  - (c) How many more pens did Natalie buy than Ellen?
5. Make up a word problem, so that the answer to it will be the value of the following numerical expression:

$$28 \div 4 - 24 \div 6.$$

6. Sylvia has exactly \$1.00 in change. She has at least one penny, one nickel, one dime, and one quarter. She does not have any half dollars. What is the least number of coins she could have?
7. A boy and a girl were saving up money to buy a game. The boy was \$7 short and the girl was \$2 short and together they still did not have enough money to buy a game. What was the cost of the game? The price is the whole number of dollars.
8. 1 Jar = 2 Bottles; 1 Bottle = 1 Cup + 1 Glass; 1 Glass = 2 Cups.  
How many cups and how many glasses are in 1 Jar? How many cups are in 1 Bottle? i.e.

$$1 \text{ Bottle} = ? \text{ Cups}$$

$$1 \text{ Jar} = ? \text{ Cups} = ? \text{ Glasses}$$

9. 1 Jar = 1 Bottle + 1 Glass; 2 Jars = 7 Glasses; 1 Bottle = 1 Cup + 2 Glasses.  
How many cups are in 1 Bottle, i.e.

$$1 \text{ Bottle} = ? \text{ Cups}$$