

Math Olympiad Beginner
Homework 4

Name _____

1. A fisherman sold some big fish at \$4 each and twice as many small fish at \$1 each. He received a total of \$72 for the big and small fish. How many big fish did he sell?
2. A box contains over 100 marbles. The marbles can be divided into equal shares among 6, 7, or 8 children with 1 marble left over each time. What is the least number of marbles that the box can contain?
3. The average of six numbers is 7. If two of the six numbers are removed the average of the remaining numbers is 8. What is the sum of the two numbers which were removed?
4. In a math contest of 10 problems, 5 point was given for each correct answer and 2 points was deducted for each incorrect answer. If Nancy answered all 10 problems and scored 29 point, how many correct answers did she have?
5. At post office, a person spent a total of \$2.00 to get some 29 cents-stamps and some 5 cent-stamps, and received no change. How many 5 cents-stamps did the person buy?
6. A restaurant has a total of 30 tables which are of two types. The first type seats two people at each table; the second type seats five people at each table. A total of 81 people are seated when all seats are occupied. How many tables for two are there?
7. Henry was able to buy some 23 cents-stamps and some 15 cent-stamps for a total of exactly \$2.50. How many 15 cent-stamps did he buy?
8. The cost of mailing a letter first-class is 29 cents for the first ounce and 23 cents for each additional ounce. A letter weighs exactly N ounces where N is a counting number, and the total mailing cost is \$1.90. What is the value of N ?
9. A light flashes every 1 minute 15 seconds. Another light flashes every 1 minute 40 seconds. Suppose they flash together at a certain time. What is the smallest amount of time that will elapse before both lights will again flash together?

10. A \$5 bill is exchanged for 72 coins having total value of \$5. Some of the coins are nickels and the rest are dimes. How many dimes are in the exchange?
11. A kangaroo chases a rabbit which starts 150 feet ahead of the kangaroo. For every 12-foot leap of kangaroo, the rabbit makes a 7-foot leap. How many leaps will the kangaroo have to make to catch up to the rabbit?
12. A group of 30 bikers went on a trip. Some rode bicycles and the other rode "tandems". (A tandem is a bicycle that is ridden by 2 people at the same time.). If the total number of bicycles and tandems was 23, how many tandems were used?