

## Elementary School Math Competition Lectures

### (1) Chickens And Rabbits Problem Solving Skills

#### Problems

1. (2012 AMC 8) The Fort Worth Zoo has a number of two-legged birds and a number of four-legged mammals. On one visit to the zoo, Margie counted 200 heads and 522 legs. How many of the animals that Margie counted were two-legged birds?

(A) 61      (B) 122      (C) 139      (D) 150      (E) 161

2. (2003 AMC 8) A group of children riding on bicycles and tricycles rode past Billy Bob's house. Billy Bob counted 7 children and 19 wheels. How many tricycles were there?

(A) 2      (B) 4      (C) 5      (D) 6      (E) 7

3. Alex has a cage for his chickens and rabbits. Alex counts 274 legs from the bottom of the cage. He counts 26 more chickens than rabbits. How many chickens and how many rabbits does he have?

4. (2009 Mathcounts) The combined number of chickens and rabbits on a farm is 100. There are a total of 260 feet on these animals. How many chickens are there?

5. (2012 Mathcounts Handbook) Ben and Jerry each have a collection of toy animals. Ben collects only two-legged toy animals and Jerry collects only toy animals with four legs. Jerry has 10 more toy animals than Ben. There are 220 legs in their combined collections. How many toy animals does Jerry have?

6. Bob spent \$10 to buy 35 stamps of 20-cent and 50-cent. How many 20-cent stamps and how many 50-cent did he buy?

7. (Mathcounts) An octopus has 8 tentacles and 1 head. A jellyfish has 20 tentacles and no head. A cow has 4 legs and 1 head. Farmer Brown, who raises only octopi, jellyfish and cows on her farm, has animals with a total of 17 heads, 196 tentacles and 20 legs. How many animals does she have?

8. (2016 Mathcounts National) Ms. Parker has three types of inhabitants on her farm: humans, horses and spiders. The humans and horses are both mammals, but humans have 2 legs each and while each horse has 4 legs. The spiders each have 8 legs and are not mammals. If the number of human legs, horse legs and spider legs are all equal, what is the ratio of mammal inhabitants to the total number of inhabitants? Express your answer as a common fraction.

Keys:

1. 139

2. (C).

3. 63 chickens and 37 rabbits.

4. 70 chickens.

5. 40.

6. 25 20-cent and 10 50-cent stamps.

7. 22.

8.  $\frac{6}{7}$ .

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<http://www.mymathcounts.com/Copied-The-Mass-Points-Method-Online-Class-reopen.php>