

# 2005 Washington State Math Championship

Unless a particular problem directs otherwise, give an exact answer or one rounded to the nearest thousandth.

## Probability - Grade 6

1. A single card is drawn from a deck of cards. What is the probability it is a face card? Write your answer as a reduced fraction.
2. A pizza establishment offers 12 kinds of meat topping (pepperoni, sausage, etc.) and 5 kinds of vegetable toppings (onions, peppers, etc). How many different two topping pizzas can be made using a combination of 1 meat topping and 1 vegetable topping?
3. Find the **mean** ages in weeks of puppies at an animal shelter. The ages are 4, 7, 6, 13, 15, 13, 8, 11, 11, 17, 5, 6. Give your answer rounded to the nearest tenth of a week.
4. Find the **median** ages in weeks of puppies at an animal shelter. The ages are 4, 7, 6, 13, 15, 13, 8, 11, 11, 17, 5, 6. Round your answer to the nearest tenth of a week.
5. Find the **range** for the ages in weeks of puppies at an animal shelter. The ages are 4, 7, 6, 13, 15, 13, 8, 11, 11, 17, 5, 6
6. Triangles are usually named by placing a **different** letter at each vertex. In how many different ways could a given triangle be named?
7. Charlie brown has 13 socks in his drawer, 7 blue and 6 green. He selects 5 socks at random. What is the probability he gets 2 blue and 1 green?
8. The table below shows the frequency of the number of dental fillings for a group of children.

Number of Fillings	0	1	2	3	4	5
Frequency	4	3	8	5	4	1

If this is typical, and you are a typical person, what is the probability that you would have one or fewer cavities?

9. The diagram shows the graphs of the cumulative frequency distributions of the masses of random samples of boys and girls in a school.



Use the information contained in the diagram to find the median mass of the sample of boys.

10. A two-digit number is chosen at random, 10 to 99. What is the probability that it is divisible by 8? Write your answer as a reduced fraction.