

Enatai Math Challenge 6

April 2009

These problems are labeled in order of increasing difficulty. Choose the one that you think fits your grade and math ability and solve the problem. People at home can help you. You will need to submit your answer using the R-E-C format that is explained on the attached form. Be certain to put the letter of the problem, your name and your teacher's name on the form when you submit it. All solutions are due to Mrs. Gaylord by Friday, May 1st. Bring your completed R-E-C form to the office. Students who successfully complete the challenge with the correct answer and a logical explanation of their mathematical thinking will receive a certificate and their name listed in the Principal Update. Happy Problem Solving!!!

Primary Problem A



The continental United States extends across four time zones. When it is 6:00 pm in New York, it is 3:00 pm in Seattle. If you are flying from Seattle to New York, it takes about 6 hours. If you plan leaves Seattle at 9:00am, what time will it be in New York when you land?

Primary Problem B

If you worked at a store and had to give a customer 23 cents in change how many different coin combinations can you find to give this amount of change?



Primary Problem C



When we recycle, we can cut back a lot on waste. In fact, out of every 10 pounds of waste, approximately 4 pounds can be recycled- reducing the total amount of waste to 6 pounds. How much of 20 pounds of waste could be recycled?

Primary Problem D

A fireman stood on the middle rung of a ladder pouring water on a building. As the smoke cleared, he stepped up 3 rungs. A sudden flare-up forced him to go down 5 rungs. Later he climbed 7 rungs to work on the fire. Then he climbed the remaining 6 rungs to the top of the ladder and stepped off to stand on the roof. How many rungs did the ladder have? Explain your thinking and your answers.



Intermediate Problem E



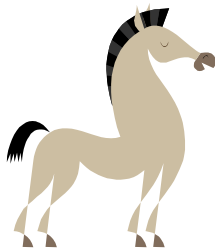
In Chile, a place called Arica is the driest place on Earth and gets just 0.03 inches (0.76 millimeters) of rain per year. The wettest place on Earth, Lloro, Columbia, averages 523.6 inches of rain a year, or more than 40 feet (13 meters). How many times more rain does Lloro get than Arica?

Intermediate Problem F

Freida is taking a test that has 30 questions. She earns 9 points for every correct answer and loses 5 points for every wrong answer. If Frieda's score is 18, how many questions did she answer correctly on the test?



Intermediate Problem G



A boy agreed to work one year for \$1840 and a horse. At the end of seven months, he quit and received \$800 and the horse. What was the value of the horse?

Super-Duper Challenge Problem

Each single-digit prime number is written on a separate slip of paper, and all the papers are placed in a hat. If two slips of paper are drawn at random, what is the probability that the sum of the numbers drawn will also be a prime?

