

Math Club Problem of the Week

Problem 2: **COME ON DOWN!!**

It's **The Price Is Right™** and you've just won a shot at playing for some fabulous prizes by bidding the closest of any of the other contestants without going over, to the price of a new TI-86 Plus Model Graphing Calculator with a compass in the stock!

You are nervous as Drew Carey announces that you will play a new game, but ecstatic as he reveals that the prize for winning is.....A NEW CAR! Of course to win, you have to guess the right price. Here is the game.

Carey reveals the first and last digits in the price of the car, but none of the others:

5 ? , ? ? ? . ? 3

Carey also tells you that from left to right, each consecutive digit is either one above, or below the digit preceding it. "For example" he tells you, "the actual retail price could be \$54,323.23, but it could also be \$56,543.23 as well as a number of other possibilities."

1. How many possibilities are there for the retail price of the car?

"Oh, and by the way" Carey says, "guess the right price and we'll give you the option of keeping the car, or playing the game again for a chance to win.....A NEW YACHT!"

2. With the same conditions as above, how many possibilities are there for the retail price (below) of the yacht?

5 , ? ? ? , ? ? ? . ? 3

The rules: Write your **answer** on a piece of paper along with your **name** and **email address**, and submit it in the box located at the switchboard in Hubbard hall before **5pm on Friday, September 26th**. All correct answers to this week's problem will be entered into a drawing to win a **\$10Wal-Mart gift card**. In addition, every correct answer to this week's problem is worth 15 points toward our semester tally. The person with the most points at the end of the semester will win our **GRAND PRIZE!** Happy solving!

[This contest is eligible only to USCL students enrolled in the Fall 2008 semester.]