

PROBLEMS FOR APRIL'08

1. Find the sum

Problem provided by Richard Neal, Editor *The Problem Solving Competition*

Find the value of the sum

$$\sum_{n=1}^{\infty} \frac{n}{(n+1)!}.$$

2. Car seats

Problem provided by Richard Neal, Editor *The Problem Solving Competition*

A minivan has two seats in front, a middle seat with spaces for three people, and a back seat with spaces for four people. Nine licensed drivers are going to ride in the van. One insists on sitting in the front seat, another insists on sitting in the middle seat, and a third insists on sitting in the back seat. How many different seating arrangements satisfy everyone?

Copies available below! Feel free to take one! Submit your solutions to one of the Math Professors at school by **May 1**. You can also find a copy at the Math Club website at

<http://faculty.randolphcollege.edu/ykurt/mathclub/mathclub.htm>.

About the The Problem Solving Competition

This is a national problem solving competition organized by Dr. Richard Neal, president of ASM (American Society for Mathematics). Every month two problems are sent out to schools and posted for students to solve. Winners of the month are presented with a certificate and the top problem solvers qualify to attend the US National Collegiate Mathematics Championship to be held in Madison, Wisconsin, in August of 2008. The problems are posted at the Ethyl Center and copies are provided for you to pick up! Enjoy! For more information about ASM and the competition go to <http://www.ascm.org/>