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TRY OUT THIS LIST!

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This problem list is for testing purposes.
Problem lists have three types of users:

(1) editors, who can change anything and who approve all changes
(2) privileged users, who can suggest changes to almost everything in the problem list, but whose changes must be approved by an editor.
(3) everyone else, which includes other registered users as well as anonymous users.

Privileges are assigned on each problem list separately. An editor of one list might not have any special status on another list.

On the list you are looking at right now, you can login a user ”aaa” (password ”aaa111”) to become an editor. Or you can login as user ”bbb” (password ”bbb111”) to be a privileged user. Or you can logout and be an anonymous user.

Problem lists have the following structure:

(1) The list is divided into sections
(2) the problems in each section have the following structure:
    a) An optional title
    b) Optional introductory statement
    c) Optional attribution (the person who posed the problem)
    d) Optional ”status” of the problem, which can be anything, but typically indicates any known progress on the problem.
(3) Following the problem are any number of remarks.

Following that structure makes it easier to maintain the list.
Feel free to make changes to this list.
Feedback is welcome: *problemlists@aimath.org*

1. Food from Italy

Italy is the European country that is shaped like a boot.
Many popular dishes have their origin in Italy test

This is the heading of the problem

These are introductory words meant to be read before the problem statement.

Problem .1. *How many pieces of pizza are in a typical pizza pie?*

Remark. [David Faermer] Eight is the most common, in my experience.

Remark. [Kent] See **??** for its definition.

Remark. [Jason Davies] test

Remark. [Terry] Costco Pizza has 18 slices on average.

The following is actually a real mathematics problem.

[.2] Given a plate of spaghetti with N noodles, suppose you randomly connect each end of a noodle to another end, with all connections equally likely. What is the expected number of loops?

Remark. When $N = 1$ there is exactly one loop.

When $N = 2$ there can be either 1 or 2 loops, with 2 loops occurring 1/3 of the time. So the expected number of loops is $\frac{1}{3}2 + \frac{2}{3}1 = \frac{4}{3}$.

Sample heading about dessert

Problem .3. *Canneloni is a type of desert.*

Remark. [Jason] Interesting problem.

Problem .4. *This is a placeholder for the statement of a problem.*

2. Food from Greece

Some sample words of introduction, just filler.

Problem .1. *The statement*

Remark. [some random person at JMM] frfefdffgfsddsvdv

Remark. [JMM person] sdfasdfasfsadfasdf

Remark. Just a test remark

3. Another section

testing x^x foo bar

Let $c(h/k) := V(\overline{h}, k)$.

Problem .05. *Prove that c satisfies a reciprocity formula* $xc(x)+c(1/x)-1\frac{}{Den_{(x)=\psi(x)}(3.0)}$ where $\psi(x)$ can be analytically continued to $\mathbf{C}'$, the complex plane minus the negative real axis.

Remark. What does "Den" mean?

This is a complicated equation

Problem .15. $\sum_{n=1}^{\infty} \frac{1}{n^2} = 1 + \frac{1}{2^2} + \frac{1}{3^2} + \ldots$
$= \frac{\pi^2}{6}$.

The Four Color theorem

This is a famous old problem.

Conjecture .2. *A planar map can be colored with four or fewer colors and there is a proof without a laborious number of cases.*

Remark. Test remark

Remark. 33

Remark. Something new.

Remark. testo

Recall that the Vasyunin sum is

$$V(h,k) = \sum_{a=1}^{k-1} \frac{a}{k} \cot \frac{\pi \bar{a} h}{k}.$$

Problem .45. *Prove that*

$$V(-h,k) = V(h,k).$$

Problem .5. *asddassad*

4. Yet another section

test

Problem 4.1. *Solve the quadratic equation.*

Remark. Remark, part 1

Remark. Remark, part 2

blah

stuff

Problem 4.2.

5. One more section

References