MATH 55A, PROBLEM SET n

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Note: This is your LaTeX template. Feel free to use it on your problemsets (recommended as a means of helping your CA's grade). For Windows and Macintosh users, try TeXStudio as a LaTeX editor. If this program ever doesn't work, you can use online TeXers like writeLaTeX , verbTeX, and Overleaf. Any questions? Contact us at vikramsundar@college.harvard.edu and prasad01@college.harvard.edu. Please TeXyour problem sets.

Have fun TeX-ing! Oh, and delete this box when you've understood this!

1. This is the problem statement. To help your CA's, always preface your solution with the problem statement. Also, putting the problem statement in a different color helps your CA's distinguish between problem and solution.

We have provided the `statement` environment to help you do this. Thanks for your cooperation!

Proof. Type your solution in this body. Feel free to use definitions, lemmas, and examples as needed in your proofs; e.g.:

Definition 1. Define $\exp(x)$ for $x \in \mathbb{R}$ to be the value of

$$\sum_{i=0}^{\infty} \frac{x^i}{i!}.$$

As in the above definition, use separate equations rather than in-line equations as much as possible. In general, if your mathematical expression takes up more than an inch on paper, you should probably put it in its own line. This makes your problemset more readable. Use equation arrays for lists of equalities:

$$\begin{aligned} 0 &= 0 + 0 + 0 + 0 + \dots \\ &= (1 - 1) + (1 - 1) + \dots \\ &= 1 + (-1 + 1) + (-1 + 1) + \dots \\ &= 1 + 0 + 0 + 0 \dots \\ &= 1. \end{aligned}$$

If you need to list things, use `enumerate` or `itemize`; e.g. Daily Schedule:

(1) Do Math 55 problemset.
(2) Do Math 55 problemset.

Date: August 30, 2017.

(3) Do Math 55 problemset.

And `itemize` gives you bullet points. □

2. Show that there are no nontrivial integer solutions to $a^n + b^n = c^n$ when $n \geq 3$ is an integer.

Proof. Good luck! □