#### **Summary**

The contest rules specify that you should include a one-page summary of your report. This page appears before the rest of the report, and will have a special header attached to it that takes up the top 2.5" of the page.

By typing your summary inside a summary environment, T<sub>E</sub>X will handle the formatting of that page correctly, including leaving space at the top of the page and not numbering the page.

It will also reset the page numbers so that the first page of your report is labeled correctly.

What should you put here? Basically, you want a brief restatement of the problem followed by a largely *non-technical* description of what you've done. Try to avoid using mathematical notation.

You probably want to write a few paragraphs, around half to two-thirds of a page.

In 2016, the COMAP folks said the following:

The summary is an essential part of your MCM/ICM paper. The judges place considerable weight on the summary, and winning papers are often distinguished from other papers based on the quality of the summary.

To write a good summary, imagine that a reader will choose whether to read the body of the paper based on your summary: Your concise presentation in the summary should inspire a reader to learn about the details of your work. Thus, a summary should clearly describe your approach to the problem and, most prominently, your most important conclusions. Summaries that are mere restatements of the contest problem, or are a cut-and-paste boilerplate from the Introduction are generally considered to be weak.

Besides the summary sheet as described each paper should contain the following sections:

**Restatement and Clarification of the Problem** State in your own words what you are going to do.

**Explain Assumptions and Rationale/Justification** Emphasize the assumptions that bear on the problem. Clearly list all variables used in your model.

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**Include Your Model Design and Justification** for type model used or developed.

**Describe Model Testing and Sensitivity Analysis**, including error analysis, etc.

**Discuss the Strengths and Weaknesses** of your model or approach.

[1]

# Your Report Title

## ICM or MCM Contest Question A B C

#### Team # xxxxx

### January 20, 2017

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### 1 Introduction

Write an introduction to your report here. It should include a restatement of the problem, the history and context of the problem, and your work and results. Your introduction should be more detailed and technical than your summary. You may also want to include an outline of your report, along the lines of

In Section 1 we give our definitions and notation. Section 2 describes our numerical experiments.....

We prove our main result, Theorem 6, in Section 5....

Of course you would replace the numbers in that example with appropriate \ref commands pointing to the correct \labels in your source.

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## 2 First Section

Here's where you start to lay things out.

# 3 More Important Stuff

## 3.1 Remember to Break Things Up Into Logical Sections

## 4 Conclusion

Here's your big ending.

## References

[1] COMAP. Contest registration and instructions. Website, 2016. URL http://www.comap.com/undergraduate/contests/mcm/instructions.php. Viewed on 2016 January 22.