[Problem Name]: Instructor Guide

[Note: Please save this to your local drive with the filename “Authorlastname.WorkingTitleofProblem.Guide.” This naming convention will help keep track of files as you move through the publishing process.

Use this template to develop an instructor’s guide for others who wish to use your problem and adapt it to their own classes. Delete bracketed information as you fill in the content. Keep in mind that as all materials are open source, students who are determined to do so will be able to find this guide. If your problem has specific solutions that would short circuit student problem solving, consider what to reveal, or not reveal, in your instructor guide. You are free to limit solution disclosure. Your contact information will be listed with the published problem, so you might anticipate that instructors from other institutions might contact you for advice or solutions.]

# Title

[Problem Name]

# Author

[Name]

[Department or College (ex: College of Arts and Sciences)]

[School affiliation (ex: University of Delaware)]

[School town, state, and zip code]

[Email]

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# Discipline

[The subject matter discipline of the problem. Most problems will have one discipline (ex: biology), but some will have multiple.]

# Target Audience

[To what kind of people will this problem be given? What educational level? Is it an introductory, intermediate, or advanced audience? Is it students majoring in the discipline, a mixture of majors and nonmajors, nonmajors, or teachers?]

# Keywords

[Keywords help other instructors find your problem for use in their classes. These should be more specific than the subject matter discipline previously listed (ex: for a biology problem, keywords may include ecosystems, species interactions, and wildlife).]

# Length of Time/Staging

[How long will the problem take? Will the whole problem be completed in class, or should students be directed to spend a certain amount of out of class time working on it?]

# Abstract

[The abstract briefly and clearly explains the purpose or the problem and may provide a basic summary of the various problem stages. The abstract should be 250 words or fewer.]

# Date Submitted

[Date submitted]

# Date Published

[We fill this in.]

# Format of Delivery

[This field expands on the length of time/staging given previously. It should describe with some basic detail the classroom routine around this problem, such as any introduction given before the problem; if the problem is completed all at once or broken up with lectures; any lecture material that should be given before, during, or after certain stages of the problem; and other information about how the different stages will be presented to the students. You might also offer advice on how the problem can be modified to fit different class levels or learning goals.]

# Student Learning Objectives

[What should students learn from completing this problem? Learning objectives may focus on the subject matter itself, or on more general research and intellectual abilities.

This field is often written in list format and objectives may be further organized into groups (ex: formative objectives and summative objectives.) Consider drawing a distinction between content goals related to your subject matter vs. process goals (teamwork, communication, critical thinking)]

# Student Resources

[List any resources that you recommend to help students through the problem; these can be textbooks, other books, websites, and so on. If there are no specific resources in mind, a general description of what students should search for (ex: books about cheetah social behavior) will suffice.

It is also possible to design a problem that students must solve without resources. In that case, specify here that no resources should be used or remove this field entirely.]

# Instructor Resources

[List or describe any resources that instructors, but not necessarily students, can use during this problem. These may be resources that the instructor can use in devising the solution or resources that an instructor should withhold until students hit a roadblock.]

# Author's Teaching Notes

[This section can explain the whole context of the class in which the problem is delivered—such as when the problem occurs in the curriculum or what information will be included in the lectures before and after the problem is used. It may provide additional information on how the problem will be shown to students and how they will be directed to work on it. It may include a step by step walkthrough for the problem or only a few guidelines. This section is very flexible.

It can also contain any additional guidance for instructors that did not fit in elsewhere.]

# Assessment Strategies

[How could students be tested on the material in the problem? This can describe something like a post-problem assessment or how students would be tested on this material in a final exam or midterm.]

# Solution Notes

[In this section, describe any additional information about the solution to the problem or how to reach it. This may include a detailed description of the answer to each part of the problem or may be a succinct explanation. Problems may not have a set answer.

If the problem has specific answers or solutions, you may prefer to delete this field and not provide a solution, as students can find this information online.]