

## Review Form View: PICUP Exercise Set Review

[\(Link\)](#)

**Instructions:** Please review the provided exercise set.

Is the content appropriate for an undergraduate physics course?

Yes

No

Does the topic provide an interesting addition to the standard curriculum?

Yes

No

Do the exercises add value to the traditional approach by providing new insights into a problem or by using computational thinking to clarify physics?

Yes

No

What is your overall recommendation?

Accept for publication as submitted

Accept for publication once revisions have been completed

Do not accept at this time

Write here any comments about your overall impressions of the exercise set.

## Exercise Set: First Impressions

The next questions will relate to your "First Impressions" of the Exercise Set: Its Thumbnail, Title, and Description.

Thumbnail: "Has a thumbnail that is interesting and captures the essence of the exercise set. Included images are appropriate. Their license allows reuse."

Satisfactory

Needs a Little Work

Lacking

Comments:

Does the title of the Exercise Set describe the content well?

Satisfactory

Needs a Little Work

Lacking

Comments:

Does the Description of the Exercise Set capture the essence of the Exercise Set and effectively communicate the "cool" things it does?

Satisfactory

Needs a Little Work

Lacking

Comments:

## Exercise Set: Content

The next questions ask for your feedback about the content of the Exercise Set.

**Learning Objectives:** Provides clear action-oriented descriptions of what students should be able to do after completing the activity. Should identify which exercises correspond to which learning objectives.

Satisfactory

Needs a Little Work

Lacking

Comments:

**Instructor's Guide:** Clear and concise. Makes the case for how/why this exercise set adds values to the traditional coverage of this topic in undergraduate physics. Includes ideas about how to integrate the exercises in class / lab. Points out issues to be particularly careful about. Possible issues to address: pre-requisites, accuracy, units, issues with initial conditions, mathematical issues (dividing by zero, normalizing), plot scales, common student questions.

Satisfactory

Needs a Little Work

Lacking

Comments:

**Theory:** Theory is described at the appropriate level. Complete and correct. Discusses limitations of the model. (Links to appropriate resources for relevant numerical/mathematical methods.) Note, theory can be very brief if this is a topic that already clearly exists within the undergraduate curriculum.

Satisfactory

Needs a Little Work

Lacking

Comments:

**Exercises:** Exercises are at the appropriate level. Each exercise is equivalent (in length / complexity) to a problem at the back of the book. The exercises in a set form a coherent whole. Each exercise gives clear instructions as to what to do and what questions need to be answered.

Satisfactory

Needs a Little Work

Lacking

Comments:

**Pseudocode:** Clearly lays out the algorithm. Is language agnostic. For ODEs is also agnostic to the method of solution (should be useable to someone who doesn't use a built-in library)

Satisfactory

Needs a Little Work

Lacking

Comments:

**Code Template:** Code documented. Reasonable variable names. Follows good practices.

Satisfactory

Needs a Little Work

Lacking

Comments:

**Solutions: Clearly answers exercises questions and gives sample output for plots (if applicable).**

Satisfactory

Needs a Little Work

Lacking

**Comments:**

**Complete Code: Code documented. Reasonable variable names. Follows good practices.**

Satisfactory

Needs a Little Work

Lacking

**Comments:**

**Other comments for Editor Only: Indicate anything that you would like only the Editor to see. Anything entered here will not be communicated to the Author.**