

# Laboratory Report

Physics 456  
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## Heading 2

This is the Lab Report - with Instructions shell document. This shell uses the style file `Lab Report.cst`. Replace this text with your own.

If you modify this document and export it as "Lab Report - with Instructions.shl" in the `Shells\General` directory, it will become your new Lab Report - with Instructions shell.

The page layout has 1.00-in. margins on all sides. The header of each page is empty and the footer of each page contains a rule with "**Lab Report**" aligned to the left side of the page and the page number aligned to the right side of the page. Use **File, Page Setup** to change the page layout.

## Heading 3

To create a heading, type the text of the heading as a separate paragraph, and then with the insertion point in the paragraph, choose from Heading 1 through Heading 5 from the Section/Body Tag popup list on the Tag toolbar.

## Heading 4

To center a paragraph, place the insertion point within the paragraph and choose Centered from the Section/Body Tag popup list on the Tag toolbar.

To set text off like this, type the text, then choose Long Quotation from the Section/Body Tag popup list on the Tag toolbar.

This is preformatted text

Spaces and line breaks are maintained within preformatted text  
Use this to enter fragments of programs

## Heading 5

You can apply the logical markup tag *Emphasized*, or **Strongly Emphasized**.

You can apply the visual markup tags **Bold**, *Italics*, Keyboard Input, **Sample Text**, and **Typed code**.

You can apply the size tags Smallest, Small, Big, Bigger, and **Biggest**.

## Mathematics and Text

Let  $H$  be a Hilbert space,  $C$  be a closed bounded convex subset of  $H$ ,  $T$  a nonexpansive self map of  $C$ . Suppose that as  $n \rightarrow \infty$ ,  $a_{n,k} \rightarrow 0$  for each  $k$ , and

$\gamma_n = \sum_{k=0}^{\infty} (a_{n,k+1} - a_{n,k})^+ \rightarrow 0$ . Then for each  $x$  in  $C$ ,  $A_n x = \sum_{k=0}^{\infty} a_{n,k} T^k x$  converges weakly to a fixed point of  $T$ .

## In-line and Displayed Mathematics

The numbered equation

$$u_{tt} - \Delta u + u^5 + u|u|^{p-2} = 0 \text{ in } \mathbf{R}^3 \times [0, \infty[$$

2.1

Numbered equations must be managed manually.

## List Environments

You can create numbered, bulleted, and description lists using the Item Tag popup list on the Tag toolbar.

1. List item 1
  2. List item 2
    - a. A list item under a list item.

This second paragraph under the same list item was created by typing Backspace at the very beginning of the paragraph. character surrounded by parentheses.
    - b. Just another list item under a list item.
      - i. Third level list item under a list item.
        - A. Fourth and final level of list items allowed.
- Bullet item 1
  - Bullet item 2
    - Second level bullet item.
      - ▶ Third level bullet item.
        - ◀ Fourth (and final) level bullet item.

**Description List** Each description list item has a term followed by the description of that term. Double click the term box to enter the term, or to change it.

**Bunyip** Mythical beast of Australian Aboriginal legends.

This is a Body Math paragraph. Each time you press the Enter key, Scientific Notebook switches to mathematics mode. This is convenient for carrying out “scratchpad” computations.