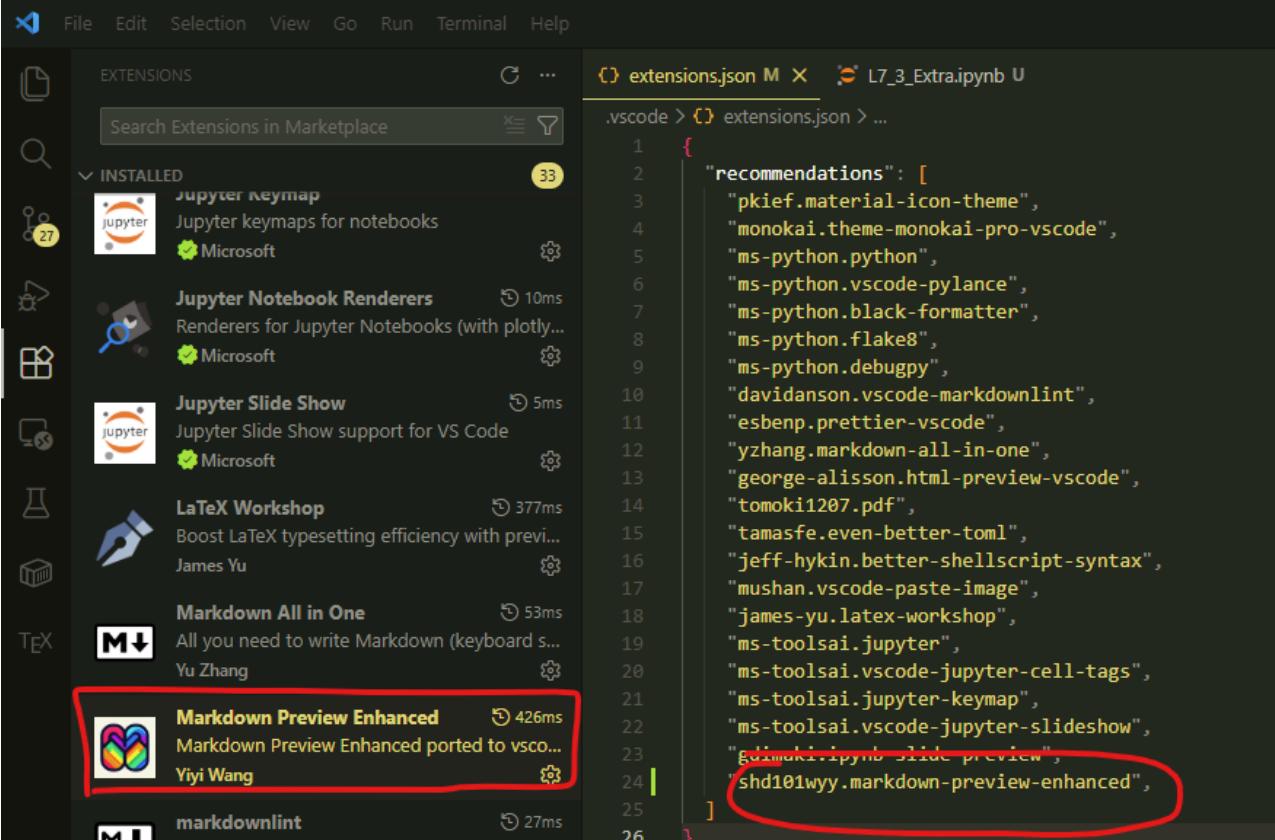


# CEE6501 — Lecture 7.3

## Installing & Using Markdown Preview Enhanced

# Install VS-code Extension

Markdown Preview Enhanced has been added to the `extensions.json` file



The screenshot shows the VS Code interface. On the left is the sidebar with various icons. In the center, the 'EXTENSIONS' view is open, showing a list of installed extensions under the 'INSTALLED' heading. One extension, 'Markdown Preview Enhanced', is highlighted with a red box. On the right, the 'extensions.json' file is being edited in the code editor. The file contains a JSON object with a 'recommendations' array. The array includes many other extensions like 'pkief.material-icon-theme', 'monokai.theme-monokai-pro-vscode', etc., and at the bottom of the array, the 'Markdown Preview Enhanced' extension is listed, also enclosed in a red circle.

```
.vscode > extensions.json > ...
1 {
2   "recommendations": [
3     "pkief.material-icon-theme",
4     "monokai.theme-monokai-pro-vscode",
5     "ms-python.python",
6     "ms-python.vscode-pylance",
7     "ms-python.black-formatter",
8     "ms-python.flake8",
9     "ms-python.debugpy",
10    "davidanson.vscode-markdownlint",
11    "esbenp.prettier-vscode",
12    "yzhang.markdown-all-in-one",
13    "george-alisson.html-preview-vscode",
14    "tomoki1207.pdf",
15    "tamasfe.even-better-toml",
16    "jeff-hykin.better-shellscript-syntax",
17    "mushan.vscode-paste-image",
18    "james-yu.latex-workshop",
19    "ms-toolsai.jupyter",
20    "ms-toolsai.vscode-jupyter-cell-tags",
21    "ms-toolsai.jupyter-keymap",
22    "ms-toolsai.vscode-jupyter-slideshow",
23    "guilhermeki.ipynb-slide-preview",
24    "shd101wyy.markdown-preview-enhanced",
25  ]
26 }
```

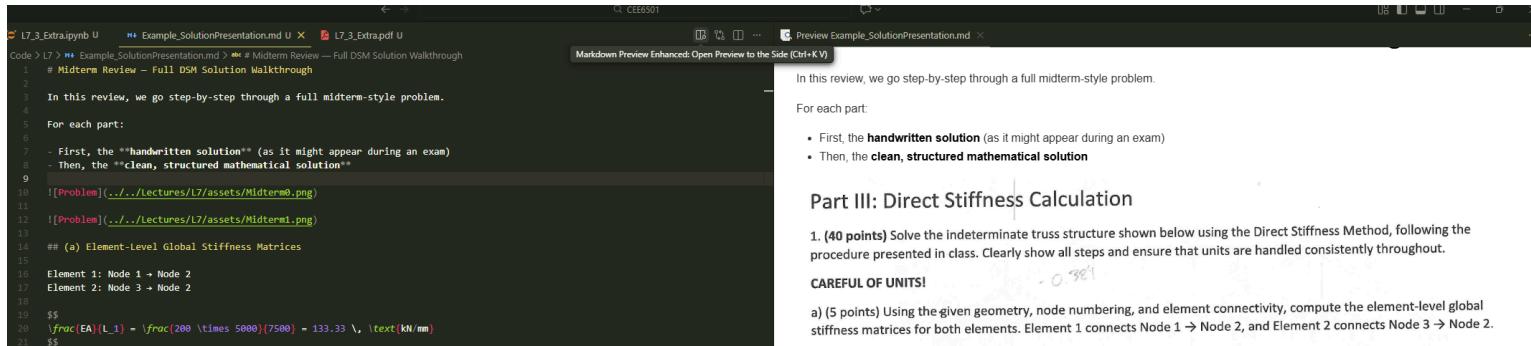
# Open Enhanced Preview

Open a markdown file. For example, the `Example_SolutionPresentation.md` file in the `Code\L7` Folder.

Click the preview button top right

or

Ctrl + Shift + P  
Markdown Preview Enhanced: Open Preview



The screenshot shows a Jupyter Notebook interface with two panes. The left pane contains a code cell with the following Python code:

```

L7_3_Extrajupyter U  Example_SolutionPresentation.md U  L7_3_Extra.pdf U
Code > L7 > Example_SolutionPresentation.md > # Midterm Review — Full DSM Solution Walkthrough
1 # Midterm Review - Full DSM Solution Walkthrough
2
3 In this review, we go step-by-step through a full midterm-style problem.
4
5 For each part:
6
7 - First, the **handwritten solution** (as it might appear during an exam)
8 - Then, the **clean, structured mathematical solution**
9
10 ! [Problem] ( ../../Lectures/L7/assets/Midterm0.png )
11 ! [Problem] ( ../../Lectures/L7/assets/Midterm1.png )
12
13 ## (a) Element-Level Global Stiffness Matrices
14
15 Element 1: Node 1 → Node 2
Element 2: Node 3 → Node 2
16
17 $$
18
19 $$
20 $\frac{EA}{L_1} = \frac{200 \times 5000}{7500} = 133.33 \text{ kN/mm}$
21
22 $$

```

The right pane is titled "Markdown Preview Enhanced: Open Preview to the Side (Ctrl+K)". It displays the rendered content of the markdown file, which includes the text from the code cell and a sidebar with instructions and a list of steps:

In this review, we go step-by-step through a full midterm-style problem.

For each part:

- First, the **handwritten solution** (as it might appear during an exam)
- Then, the **clean, structured mathematical solution**

**Part III: Direct Stiffness Calculation**

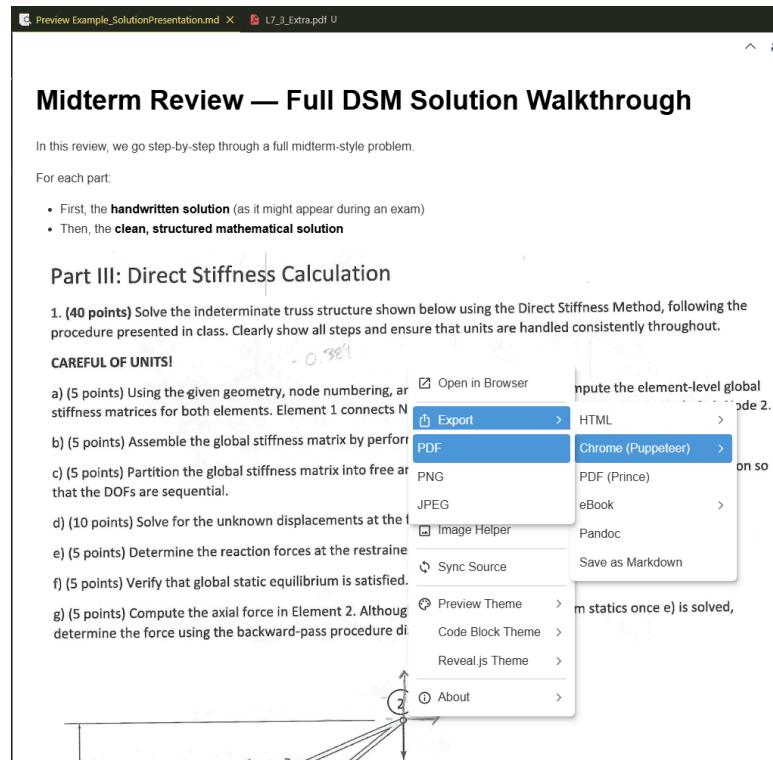
1. (40 points) Solve the indeterminate truss structure shown below using the Direct Stiffness Method, following the procedure presented in class. Clearly show all steps and ensure that units are handled consistently throughout.

**CAREFUL OF UNITS!**

a) (5 points) Using the given geometry, node numbering, and element connectivity, compute the element-level global stiffness matrices for both elements. Element 1 connects Node 1 → Node 2, and Element 2 connects Node 3 → Node 2.

# Export to PDF

right click -> Export -> Chrome (Puppeteer) -> PDF



## Find Exported PDF

The PDF should be saved in the same location as the .md file