For full credit, you must clearly <u>show all work</u>, and upload the solutions as a PDF before 11:59 pm on the due date.

Write a four-page project on the following topic. You may use any of the provided references to complete your project.

Compact Sets and Their Applications

The project should primarily cover the following topics:

1. Definition of Compact Sets

2. Examples of Compact Sets

3. Properties of Compact Sets

4. Applications of Compact Sets

5. References

Use Microsoft Word or LaTeX to write your project. The project should be well-organized, with clear headings and subheadings. Use appropriate mathematical notation and symbols where necessary.