Section A.

INSTRUCTIONS:

1. The problems in this section will ask you to **complete a definition** or to **prove a theorem** from the course lecture notes.
2. Definitions must be stated precisely as they are in the course lecture notes (up to rewording). Each definition statement is worth **one point** and no partial credit will be given.
3. Theorem proofs will each be worth **five points**, which will be awarded using our standard rubric (which is available in the Section C instructions).

A1. (1 point) **Complete the following definition:** The SPAN of vectors $\vec{v}_1, \vec{v}_2, \ldots, \vec{v}_n$ in $\mathbb{R}^m$ is ...

either is fine

the set of all linear combinations of $\vec{v}_1, \ldots, \vec{v}_n$;

that is,

$\{c_1\vec{v}_1 + \cdots + c_n\vec{v}_n : c_1, \ldots, c_n \in \mathbb{R}\}$