Quiz #5

1. Show that $\{f | f(x) = f(-x)\}$ is a subspace of $C((-1, 1))$.

2. Is the set of 2×2 matrices with 1s along the diagonal a subspace? If so, show it. If not, show how at least one required property fails.

3. Is the function $x + 5$ in the space spanned by $x + 1$ and $x + 3$?

4. Show that $\{(1, 1, 1), (0, 1, 2), (3, 0, 1)\}$ is a basis for $\mathbb{R}^3$.