

Name:

Find a basis for each of the following vector spaces.

1.  $V = \{f \in \mathbb{P}_3 \mid f(-1) = f'(-1) = 0\}$

2.  $W = \{A \in M_3 \mid A^T = -A\}$ , where  $M_3$  is the set of all  $3 \times 3$  matrices