

M308D HW 6 answers

Sec 3.7

6. $x_1 = -2 + x_2$, x_2 arbitrary

8. Yes

10. NO

18. Orthonormal basis $\left\{ \begin{bmatrix} 1 \\ 0 \\ 0 \end{bmatrix} \right\}$

20. a) $[-3, 3]^T$

b) $[-6, 0]^T$

c) $[-9, 7]^T$

34. $[x_2, x_1]^T$

46c) $\begin{bmatrix} 0 & 1 \\ 1 & 0 \end{bmatrix} T(e_1) = e_2, T(e_2) = e_1$

Sec 3.8

12. $y = -\frac{1}{12} - \frac{1}{20}t + \frac{1}{4}t^2$