

Homework #4: due in class Friday, Oct. 2

**From the text:**

Chapter 3.4 / 2,6,7,10,31

Chapter 3.5 / 4,20,33\*

Chapter 3.6 / 4,10,15

\* Hint: since the statement is true for all  $\mathbf{x}$ , for each  $j = 1, \dots, n$ , take  $\mathbf{x}$  to be the vector  $\mathbf{x}_j$  that has a 1 in the  $j$ th position and 0 in all other positions. What does the statement say about  $\mathbf{A}$  for this choice of  $\mathbf{x}$ ?