**PRACTICE 3r**: p.417 D4: This problem from the previous section is best solved using the idea presented in this lecture of breaking a complex vector  $\vec{z}$  into its real and imaginary parts:  $\vec{z} = \vec{x} + i\vec{y}$  for  $\vec{x}, \vec{y} \in \mathbb{R}^n$ .