

Throughout the course, we will use **EK** to refer to the course textbook “Erwin Kreyszig: *Advanced Engineering Mathematics*, 10th edition.”

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Reading: Chapter 5

1. **EK** P174: 2,3,15
2. **EK** P186: 2,3,4
3. **EK** P200 (5.5): 1
4. **EK** P402: 11,12,13
5. **EK** P406: 1,2
6. Let

$$a = \begin{bmatrix} 2 \\ 1 \\ 0 \end{bmatrix}, \quad b = \begin{bmatrix} -3 \\ 2 \\ 0 \end{bmatrix}, \quad c = \begin{bmatrix} 1 \\ 4 \\ -2 \end{bmatrix}$$

Compute

$$a \times b, \quad b \times a, \quad (a \times c) \times b$$