

## Math 2260 HW #15

Due 10:10 AM Friday, April 27

**Reading:** Hass §11.4–11.5

**Problems:** Do the assignment “HW15” on WebWork. In addition, write up solutions to the following problems and hand in your solutions in class on Friday.

1. Suppose  $\vec{u}$  and  $\vec{v}$  are vectors in space such that  $|\vec{u}| = |\vec{v}|$ . What can you say about the angle between the vectors  $\vec{u} + \vec{v}$  and  $\vec{u} - \vec{v}$ ?
2. Let  $\vec{u} = 2\vec{i} - \vec{j}$  and let  $\vec{v} = \vec{i} + 2\vec{j}$ .
  - (a) What is the vector  $\vec{u} \times \vec{v}$ ?
  - (b) Draw the vectors  $\vec{u}$ ,  $\vec{v}$ , and  $\vec{u} \times \vec{v}$ .