

This is an open-book, -library, -internet take home exam. You are not allowed to collaborate; I am the only person you are allowed to consult. You can ask questions during office hours, or you can email me at any time during the day.

In a sense the exam is like a homework assignment, but you should treat it with much more care. First, it's worth roughly six times more than a standard homework assignment when everything is weighted to compute course grades. Second, you don't have the pressure of studying for an in-class exam, so you should expect to spend at least as much time working on this as you would have spent studying otherwise. Some of this time should be spent reading and mastering concepts from Chapter 3.

As always, you should explain your work, writing complete sentences with reasonably correct grammar. A good rule of thumb is that the work you hand in for this exam should not be your first draft. Figure out the problem on another sheet of paper, organize your thoughts, and *then* write out your solution.

Due: Monday, October 19 at the beginning of class.

HOMEWORK ASSIGNMENT

Problem A: (9 Points) Consider the angle $\angle UOX$ formed by $U = (1, 0)$, $O = (0, 0)$ and $X = (3, 4)$. Find a vector V so that $|\angle UOV| = \frac{1}{2}|\angle UOX|$.

1.6.22: (6 Points) Do parts (ii) and (iii). *Special* means the direction indicator (for the parametric form) or coefficient vector (for the normal form) is a unit vector.

3.6.6: (7 Points)

3.6.10: (7 Points)

3.6.12: (7 Points)

3.6.23: (7 Points)

3.6.25: (7 Points)